



**THE CHEMIST AND DRUGGIST**

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NUMBER

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ALSO, AS SUPPLIED TO H.M. THE QUEEN AND THE ÉLITE OF THE ARISTOCRACY,

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**2/6 per dozen. Six dozen Carriage free.**

PURE SODA, PURE POTASH, LEMONADE, AND AROMATIC GINGER ALE.

**Special Terms for Quantity.**

EXCHANGE COLUMN, PAGE 4.

ADVERTISERS' AND BUYERS' REFERENCE LIST AND INDEX TO ADVERTISEMENTS, PAGES 19-21.



# "BROMIDINE."

(BORLAND'S PATENT.)

*A Powerful Disinfectant, Antiseptic, & Deodorizer.*

SOLE MANUFACTURERS—

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(W. G. Baker. R. C. Heath. T. Tyrer. W. E. B. Blenkinsop),

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### FINE, PHARMACEUTICAL & GENERAL CHEMICALS.

(See former Advertisements in THE CHEMIST AND DRUGGIST.)

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**GARDEN WHARF, CHURCH ROAD, BATTERSEA,  
LONDON, S.W.**

# "BROMIDINE"

*Is a specially prepared Mixture of **Bromine** and other substances, which, upon moistening or heating, permits the evolution of **Bromine** in the gaseous form, and, at the same time, in a manner completely under control.*

## ADVANTAGES :

Its powers are exerted by a small bulk of preparation.

It removes mephitic and offensive odours at once.

It effectually disinfects and deodorizes Urinals, W.C.'s, Drains, Dust-bins, Rubbish Heaps, Manure Heaps, Stables and Stable-yards, &c.

It acts as a continuous disinfectant and deodorizer of Sick Rooms, Wards, &c.

**Bromidine** is **10** times as powerful as Carbolic Acid or Potassium Permanganate in retarding putrefaction.

**Bromidine** is **300** times as powerful a germ-destroyer as Potassium Permanganate.

**Sold in 1s. and 2s. Bottles. Usual Discount to the Trade.**

# OLDFIELD, PATTINSON & CO.

Sole Proprietors and Manufacturers of the

## 'Silver Churn' Butter Colouring,

*a purely Vegetable preparation for giving to Butter, at all seasons, a rich cowslip tint, not obtainable by other means. It is the best and cheapest preparation in the market, and does not crust or deposit like the Danish and American makes, and has the further advantage of being a Home Product. Druggists in the grazing districts will find this a very saleable line. It is sold in bottles attractively got up at*

6d.	1s.	2s.	5s. size
4s.	8s.	16s.	38s. per dozen.

*Is usual 10 per cent. discount. Buyers of £5 worth gross value, which may be assorted to suit their requirements, are put on full wholesale terms.*

*For large Dairies and Druggists, who prefer to bottle it under their own name, we supply in bulk at*

**1s. per lb. in Whr. Qts., 100s. cwt. in 2-gallon bottles.**

*Also in 12-gallon and 3 and 5 cwt. casks at special prices. Title and Trade Marks ("Silver Churn" and "Buttercup") are registered.*

## Wholesale Druggists.

**SPECIALITIES**—Cucumber Cream, 1/2 per lb., 1/ in Wr. Qts.  
 Composition Essence, 1/2 per lb., 1/ in Wr. Qts.  
 Botanic Extract, 1/2 per lb., 1/ in 2-gal. bots.  
 Persian Bouquet, 8/ per lb., 7/6 in Wr. Qts., a choice and very lasting perfume.  
 Persian Bouquet Lozenges, 2/ per lb., 1/9 in 14-lb. lots.

Concentrated Infusions and Decoctions.	Expressed Juices and Chemical Syrups.
Concentrated Liquors for Syrup Making.	Fluid and Solid Extracts.
Sluble Essences and Extracts for Mineral Waters.	Essences for Rectifiers, Cordial Makers, Brewers, &c.
Vegetable Colours, Flavours, and Essences for Confectioners.	Essential Oils and Colours for Soap Makers.

Large buyers are requested to write for special quotations, at the same time stating quantity.

Price list may be had on application with business card.

# Manchester.



# EXCHANGE COLUMN.

This section of "The Chemist and Druggist" must be closed for press by Thursday noon of each week. Remittances payable to EDWARD HALSE.

## TERMS.

Advertisements in this department must be paid for in advance. From this rule no deviation can be made. Insertions are charged at the rate of 1d. per word, provided the advertiser attaches his name and address, for each word of which he must also pay at the same rate; or if he pays 1d. per word, his name and address will be registered and a figure attached to his advertisement. All correspondence referring to that figure must be addressed to "The Publisher of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C., and the figure must be distinctly endorsed upon the envelope. Letters will then be forwarded to their proper destination. A price is counted as one word, as e.g., 41 10s. 6d.

**DEPOSIT OF MONEY.**—In order to ensure safety we offer the following system:—The purchaser of anything advertised in the Exchange Column may remit the amount to us. We acknowledge receipt to both parties by post cards, and only pay the money deposited on the advice of the remitter. Whether returned to him or paid to the seller, we charge a commission of 6d. on any transaction of £3 or less, or 1s. if above that amount.

## FOR DISPOSAL.

### Dental.

Owen's dental chair, footstool and pedestal spittoon, price 8l. the lot; no offers. Dougau, 294 Oxford Street, Manchester.  
2-flask vulcaniser with thermometer, 30s.; 8 American and other forceps, 25s.; want operating-room lathe, &c. Nosworthy, Dentist, Stokes Croft, Bristol.

### Soda-water Machinery.

Rotary racking pump, *Invicta*, 3l. 10s. "Czone," Cale Street Distillery, Chelsea.

### Drugs and Chemicals.

Sulphate of copper, 3 ewt. for 24s. MacDermott, West Worthing.  
Hop resin, a very powerfully appetising and soothing tonic; would be an invaluable appetising adjunct in horse balls, pills, and medicated lozenges; being a by-product 6d. per lb. only, 7 lbs. 3s. Hay, Manufacturing Chemist, Hull.

### Optical.

A "Hartnack's" microscope, as sold by opticians for 7l. 10s.; quite equal to new; will sell for 5l. Wm. Mathie, 127 Buchanan Street, Glasgow.

### Literature.

Squire's "Pharmacopoeia," 2s.; "Guide to Soap-making," 2s. 6d. 30 Finlay Street, Sheffield.  
Wills's "Pharmacy," last edition, quite new; 4s. 6d. carriage paid. G. D., 9 St. Augustine's, Norwich.  
Atfield's "Chemistry," 9th edition, 7s.; Valentin's "Analysis," 5th, 3s.; both new. MacDermott, West Worthing.  
Chemist & Druggist, last three years; also Bentley's "Structural Botany," recent edition. J. Agar, 5 Castle Street, Swansea.

### Formulae.

Reliable recipes, 6d. each; full set of 130, neatly copied in book, 7s. 6d.; send for list. "Chemist," Edwards, Wye, Kent.  
Tenth year's advertisement, 1,500 clients, hundreds testimonials, strictly confidential; Brook's recipes are best; preparations all in commerce; try them.—"Influenza Mixture," acts like magic, pleasant and safe; "Glycerine Cream" (like Beetbam's), rapidly cures chapped hands, frost-bites, &c., rendering skin like velvet; "Hop Tonic," better than any other, can be made instantly, costs 1s. lb.; "Canadian Cone," certain cure for chilblains, sweet and clean; "Bronchelixir," rapidly gives relief in bronchitis and chest affections, wonderful remedy; "Embrocatio Alb.," inseparable white oils, fac-simile of Elliman's, certain to please, easily made; "The Jubilee Sauce," universally liked, most luscious, renders cold meat a luxury, differs from any other, costs under 6d. a pint; recipes 1s. 1d. each, 3 for 2s. 6d. Special offer.—Cut this out and above will be sent (as sample) for 5s.; list free. Tom Brooks, Chemist, Louth, Lincs.

### Photography.

To Photographers.—On sale, cheap, or exchange, a Sheffield burnisher; will do carte, cabinet, and Imperial sizes. Wilkinson, Fitzalan Square, Sheffield.

### Shop Fittings.

To Chemists.—Five nests of drawers, bottles, jars, carboys, and sundries; must be sold. Apply, G. M., 2 Marsh Lane, Liverpool.  
Handsome globe lamp (copper), almost new, with three red bull's-eyes; price 55s. R., 5 Tower Terrace, St. Leonards-on-Sea.  
Brass counter scales, mahogany box with drawer, 20s.; splendid upright mahogany case, cost 20l., price 6l. Kendall, Blyth.  
Wm. Gill, Chemist, Nottingham, has for disposal the fittings of a chemist's shop; would suit herbalist or village chemist; to be sold cheap.

6-ft. mahogany case for front of counter, several carboys, brass counter scales, &c.; wanted tincture press in exchange to value. Gascoigne, Chemist, Dewdney.  
A handsome Spanish-mahogany plate-glass show-case, movable double doors, one side sponges, other with four movable shelves for general display; cupboards at back for storage; length 53 inches, width 17 inches, height 35½ inches; reason for selling room required; early new; cost 6l. 10s.; rough sketch forwarded on application; what off is? Shaw, Oakengates.

Second-hand fittings.—6 wall cases, 4 counter-cases, 2 dispensing screens, handsome ditto, elliptical on plan, 2 desks, 3 counters, 4 nests drug drawers, 2 ditto, glass labels, 2 window enclosures, various ironwork and gasfittings, 3 specie jars, 531-in. scroll labels and plinths, our own supply few years, 11 carboys and stands, 24 green carboys, 192 rounds, yellow paper labels, and 60 odds with contents, 2 gross rounds 72 pots, 215-in. marble mortars, fascia; remittances with orders. Hawke & Son, Wild Court, Great Wild Street, London.

### Miscellaneous.

24-grain pill machine, 10s. 30 Finlay Street Sheffield.  
1½ ewt. garlic, 4d. small lots. R. C. Mason, Bromsgrove.  
1-lb. tins vaseline 13s. 3d. per dozen; cash with order. Coley, Chemist, Stroud.  
Complete set silver and gold Jubilee coins; what offers? Freeman, 169 Hemmingsford Road, N.  
Stilton cheeses, 10 lbs. each; send postal 7s. 6d. Knaggs, Chemist, Bainbridge, *via* Bdale.  
Three 100-gallon oil cisterns, with taps and covers; price 20s. each. Speechly, Bishop Stortford.  
Microscope objects, 6d. each, 5s. dozen, large variety; list; approval. Henry Ebbage, Framlingham.  
Microscopic slides, best quality only, from 2s. 6d. dozen; lists and testimonials. B., 237 Maida Vale, W.  
Prime Yorkshire bams, 1887 cure, 24 lbs. each, 9d. lb.; send postal 18s. for one. Knaggs, Chemist, Bainbridge, Bdale.

Why pay 1s. 4d.? 7 lbs. genuine Pontefract cakes, carriage paid, 6s.; sample free. Young, Castle Pharmacy, Pontefract.  
Judson's corrugated carbon battery, with incandescent lamp, twelve cells complete in case. Lasham, Romford.  
Mentbols, and few other sundries, left over of an export order; will be sold as a job, and take a low price. Apply to Goode & Co., 21 Coleman Street, E.C.  
5 barrels super Lofoden cod-liver oil, 1887, 4s. per gallon for single barrels or offer for the whole; samples on application. Cleghorn, 23 Prospect Place, Leytonstone.  
Eight barrels R. D. petroleum, 8d. gallon in Birmingham (7½d. in Gloucester) as required; 55-lb. tins glycerine, 1-260, 40s. each; brass counter-scales with drawer, 20s. (worth 30s.); Enterprise drug mill and lot of drugs, patents, and sundries, very cheap; lists sent. Griffin, Chemist, Kidderminster.  
Six 5-gallon carboys, counter fountain, with 10 silver-plated taps and everything complete, in good order, also a complete plant soda-water machinery, comprising double pumps, gun-metal cylinder, fast and loose pulleys to each, leaden generator, improved, and gasometer, at very low price to clear, in one lot or singly. Wardle, 230 Brixton Road, S.W.

## WANTED.

A good cigar-case. Lloyd, Chemist, Abergele.  
Large iron mortar, also tincture-press. Wheeler Gate, Nottingham.  
Second-hand dental operating chair, cheap; send full particulars. 160/6.  
Selecta & Prescriptis, Pareira; state price, F. Cox, 82 Stokes Croft, Bristol.  
Wills's "Decimals and the Metric System." Mann, 3 North Hill, Colchester.  
Show mortar, outside, or lamp combined. Collins, 124 Hebrew Road, Burnley.  
A few pots of Josephon's ointment; state price. Nickson, Chemist, Ladbroke.  
Chemist & Druggist, March 5, October 15, December 3, 1887. Francis, Chemist, Wrexham.  
Wills's "Postal Minor Lectures," recently copied; state price. Sewell, care of Nicholson, Chemist, Darlington.  
Immediately, about 10 doz. second-hand shop rounds. Price and particulars, W. Pescod, 28 Milton Street, Newcastle-on-Tyne.  
Dental engine, pill machine (2 or 3 grain), chemical balance, Stouck's dispensing scales. Address, Deubigh Pharmacy, Archer Street, Westbourne Grove, W.  
Second-hand, at lowest cash terms, Cook's "Botany," Ince's "Latin Grammar," Muter's "Chemistry," Muter's "Materia Medica"; latest editions. F. Bustard, Seldown, Poole.

## Addressees Wanted.

George Thoburn, maker of Dr. Clarke's Hygienic Lotion. Wilson, Harrogate.  
Mrs. Okes Voisey; thought to be either at Nice or Mentone. A. B., 42 Cannon Street.



## SECOND-HAND SODA-WATER MACHINERY AND APPLIANCES.

Now in Stock, and offered for Sale at the following Exceptional Low Prices.

**NOTE.**—Every item in this department, though in many cases not of our make, has been thoroughly overhauled and corrected by us, and wherever necessary worn parts have been removed and replaced by new; every detail is examined by competent workmen, so that customers may feel every confidence that the machine they purchase is in every respect equal to, or in some cases better than, when new. Our prices are based upon the amount of work expended to render the particular machine thoroughly SERVICEABLE and RELIABLE.

### SODA-WATER MACHINES.

	Catalogue Price, new	Offered at
£ s.	£ s.	
No. 1 Prize Medal Soda-water Machine in thorough repair, silvered throughout. Barnett & Foster's make ...	60 0 ...	40 0
No. 1 Prize Medal Soda-water Machine, gun-metal cylinder, with new pump and valve box. Barnett & Foster's make ...	55 0 ...	35 0
Soda-water Machine by Hayward, Tyler & Co., comprising Two 2-inch pumps and large gun-metal cylinder, in excellent working order, with pulleys for steam power, all new bearings and couplings ...	...	37 10
Double Soda-water Machine, by Herman Lachapelle (Paris), large gun-metal condenser ...	90 0 ...	22 10
Soda-water Machine, with 2½-inch pump and 5 gallon gun-metal cylinder, by Payne & Griffiths ...	...	30 0
No. 4 Prize Medal Soda-water Machine, by Barnett & Foster, equal to new ...	...	25 0
No. 2 Lilliputian Soda-water Machine. Bratby & Hinchliffe's make ...	68 0 ...	25 0
Small American Soda-water Machine, complete with acid bottle and washer; cylinder, 8 gallons capacity ...	...	10 0
Large American Soda-water Machine, with copper generator and two cylinders ...	110 0 ...	35 0
"Chemists'" Soda-water Machine by Bratby & Hinchliffe, repaired by Barnett & Foster ...	28 0 ...	19 0

### SINGLE AND DOUBLE PUMPS IN FRAMES.

A pair of 2-in. Pumps, mounted on Gothic frame, with pulleys for power, by Barnett & Foster ...	48 0 ...	25 0
A pair of 2½-in. Pumps, mounted on frame, with pulleys for steam power, thoroughly overhauled and repaired quite equal to new, Barnett & Foster's make ...	48 0 ...	38 0
A pair of 2-in. Pumps, with pulleys for power, just repaired, quite as good as new. Barnett & Foster's make ...	48 0 ...	35 0
Single Pump, in frame, 2½-in. plunger with fast and loose pulleys for power. Barnett & Foster's make ...	48 0 ...	25 0

### CYLINDERS.

Thirty-gallon Wine-Aërating Cylinder, with agitator and all fittings and connections, quite new, by Barnett & Foster. Tested to 120 lbs. pressure ...	...	25 0
Two 4½-gallon Copper Cylinders, on frames, with pressure and water gauges, safety valves, draw-off connections, &c. Barnett & Foster's make ...	each	8 0
Two 15-gallon Horizontal Cylinders on Iron Frames ...	each	32 0 ... 15 0
Three 20-gallon Upright Cylinders, with lugs for rockers, made to order, never been used ...	...	28 0 ... 12 0
Cast Steel American Rocking Cylinder ...	...	15 0 ... 5 0
Two 10-gallon Cylinders, for use with Counter Fountains ...	each	...

### GENERATORS, GASOMETERS, &c.

Mondolot's No. 3 Double Generator, complete with acid box and safety valve, fast and loose pulleys, funnels, &c. Quite new, never been used ...	46 0 ...	40 0
Three Large improved Vertical Generators, with new fittings and connections. Barnett & Foster's make ...	each	30 0 ... 22 0
Smaller size Vertical Generator. All fittings and agitator new. Barnett & Foster's make ...	...	25 0 ... 18 0
McEwen's No. 2 Patent Automatic Gas Generator, with whitening mixer, electric bell, &c., nearly new ...	...	35 0 ... 27 0
Copper Gasometer in oak tub, 2 feet 6 inches by 3 feet 9 inches, by Galloway ...	...	...

### FILLING MACHINES.

Two "Instantaneous Fillers" for ball-stoppered bottles, quite new. Galloway's make ...	5 5 ...	3 10
Two Barrett & Eler's Tube Filling Machines, with syrup pumps, as good as new ...	each	14 0 ... 6 10
Tube Filling Machines with syrup pump, by Galloway ...	...	6 0
Tube Filling Machine, with syrup pump, by Clark, of Canterbury ...	...	5 10
"Premier" Turnover Filling Machine, with syrup pump, nearly new ...	10 10 ...	6 0
"Manchester Rack" Filling and Corking Machine with syrup pump, by Bratby & Hinchliffe, repaired by Barnett & Foster ...	7 7 ...	4 10
Syphon Filling Machine by Bratby & Hinchliffe, repaired by Barnett & Foster ...	7 7 ...	4 10
Cockroft's Patent Filling and Corking Machine, with syrup pump, in good repair ...	15 15 ...	10 0
McEwen's Rapid Paragon Turnover Filling Machine with syrup pump ...	9 9 ...	6 0
Syphon Filling Machine, by Mondolot ...	7 0 ...	4 0
Syphon Filler with syrup pump, by Barnett & Foster ...	14 0 ...	8 0

### SUNDRIES.

Hand Cooling and Refrigerating Machine ...	20 0 ...	8 8
Several Patent Acid Taps ...	each	2 2 ... 0 15
Lift and Force Pump, 3-inch barrel, in use only about three months, removed to make room for larger ...	...	6 6 ... 3 0
A few "Automatic" Water Fountains and Filters combined, for counter use ...	each	4 4 ... 2 0
A Set of two-ram Water Engines ...	...	6 0
Large quantity Patent Cork and Wood Openers, for Codd's Bottles ...	per gross	6 0 ... 2 6

*Should any Article not mentioned above be required, send for a list of all additions to our stock since date of this Journal.*

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Mineral Water and Ice Machinists, Bottle and Box Makers, Manufacturing Chemists, and General  
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Demonstrator—Mr. T. W. CARR.

For Preliminary Pupils—Mr. W. Pendlebury.

### PASS LIST.

At the recent Examinations 9 were sent in for the Minor, 7 passed, viz. :—

Mr. J. P. CASEWELL.....	MARKET DRAYTON.
" THOS. EDMONSON.....	COCKERMOUTH.
" G. W. GIBSON.....	WHIRBY.
" G. J. KERR.....	LIVERPOOL.
" H. MADDOCK.....	MANCHESTER.
" J. W. WHITELEY.....	GAINSBOROUGH.
" F. H. WILKINSON.....	TRANMERE.

In announcing the Classes for 1888, the Principal has much pride in referring to the grand success of the Liverpool School during the past year, as shown by the Pass Lists.

During the year 1887 more than twice the number passed the various Examinations (Major, Minor, and Preliminary) from this school than were successful in 1886, or in any previous year.

Such results are highly gratifying, and Mr. Ward is determined, with the co-operation of the teachers and the pupils, to maintain the successes of the past.

The Classes are so arranged that Students can join at any time, and the fees are moderate.

Accommodation for indoor pupils, who have the special advantage of pursuing their studies under the supervision of the Principal.

Syllabus, with Time-tables, Fees, Pass Lists, &c., sent free on application.

"CONCILIO ET LABORE."

## THE MANCHESTER COLLEGE OF PHARMACY,

225 & 227a OXFORD STREET, MANCHESTER.

ESTABLISHED 1877. MANCHESTER, 1882.

Director—Mr. W. SPENCER TURNER, Pharm Chem., &c., &c.,

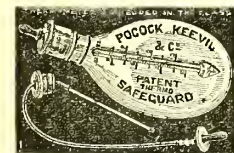
Aided by Mr. G. CLAYTON, Pharm. Chem.,

And Mr. F. E. BOWDEN, Chemist and Druggist.

THIRTY STUDENTS from this School have passed at the LAST FOUR Minor Examinations.

Students wishing to enter the April Classes are requested to do so at once, as they will shortly close.

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A THERMOMETER Embedded in the Glass.

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The system of study adopted has been tried with the most successful result. The effect of the method of teaching is to develop, strengthen, and enlarge the mental powers—TO EDUCATE. By this system, while sharp pupils make rapid progress, all, even the dull ones, are so interested in their work that they cannot fail to make satisfactory progress. In proof of these statements, gentlemen are referred to the hundreds of Testimonials in the hands of the Principals from former Pupils, and to the high position attained by the school during the Fifteen years it has been established.

At the Examinations held in London in December the following 28 students passed out of 31 who were sent in from this Institution :—

MAJOR.—Mr. H. W. ELSDON.

### MINOR.

Mr. BROOKES, J.	Mr. GREEN, F.	Mr. REYNOLDS, P.
" BATTY, G. A.	" HURN, A. J.	" ROBSON, T. W.
" CALLAM, W. E.	" MACERIDGE, W.	" ROUTLEY, E. W.
" COOPER, J. J.	" MASTERMAN, F. J.	" RYALL, F. J.
" COOPER, C.	" MORGAN, W. J.	" SPRY, R.
" DAVIDSON, D.	" PAIN, P.	" STAPLETON, F. W.
" DAVIDSON, J. R.	" PELEWS, W. H.	" WATKINSON, E. W.
" FRANKLIN, A. J.	" PRIOR, J.	" WESTON, G.
" FORSTER, J. R.	" REES, C. A.	" WILCOCK, F. A.

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10,000 Good Effective Handbills, 7½ in. by 5 in. from 12s 6d | Memorandums — name on 2ap — — — per 1,000 from 5s 6d  
Superfine Fly Leaf Note Paper — — — per ream 8/- | Superfine Envelopes, name on 2ap — — — per 1,000 4/ & 6/

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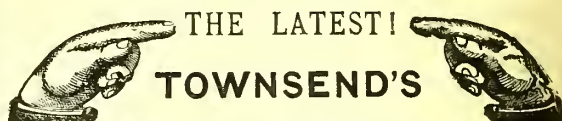
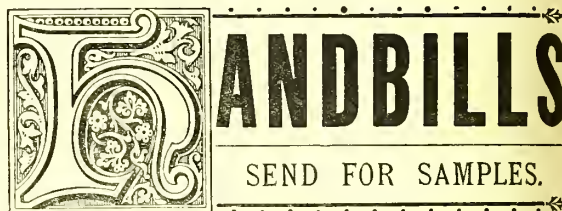
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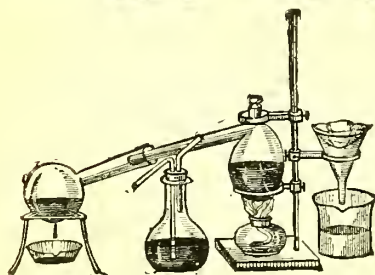
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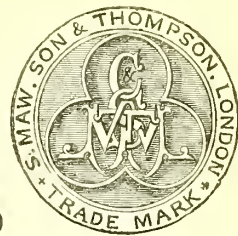
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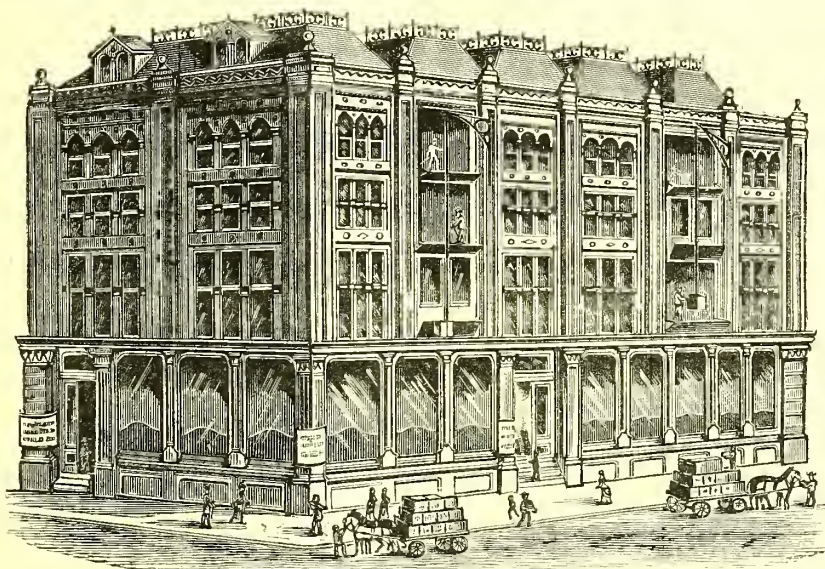
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In Air-tight Lead Package, 4, 2, and 1 pound.

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**W. HAY,** Manufacturing Chemist, Beverley Road, **HULL,**  
**ENGLAND.**



Telegraphic Address—CHEMICUS LONDON.

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 Lin and Co.  
 Harris and Caillard (Salts)

**ARATED AND**

**MINERAL WTS**  
 Collinards (Hungary), Friedrichs and Apollinaris  
 Gneiss and Apollinaris  
 Bennett and Foster (Spa)  
 Comley and Co. (Woodhead)  
 Water, H. W., and Co. (Ginger Ale Essence)  
 Chemists' Aerated Waters Association  
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 (Ruthin)  
 ans, Sons and Co.  
 rston and Co.  
 W. W.  
 sell and Co. (Citric Acid Phospho)  
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 is and Co.  
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 usbury and Brown  
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 lis and Co. (Bourne)  
 nus Spring Natural Mineral Water Co.  
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**DITTO PLANT**  
 [See SYMPHONS AND ESSENCES.]  
 Barnett and Foster  
 Bratby and Hinchliffe  
 Bush, W. J., and Co. (Foam Producer, &c.)  
 Fawcett, H.  
 Gueret Freres  
 Tyler, Hayward, and Co

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 Appleby and Halse  
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 Campbell, N. S., and Co.  
 Christie, Carlos, J., and Cia  
 Cocking (Japan)  
 Evans, Sons and Mason (Lim.) (Canada)  
 Felton (Melbourne)  
 Fougars (New York)  
 Kempthorne (N.W. Zealand)  
 Macnaughton, F. J.  
 Prosser, E., and Co. (Sdny)  
 Roberts (Paris, &c.)  
 Rocks (Melbourne)  
 Sharland & Co. (Auckland N.Z.)  
 Soul, W. H., and Co.  
 Stallman and Fulton

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 Howards and Sons (Cinchona)  
 Smith, T. and H.

**ALMILAJ**  
 Mercus, L.

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 May and Baker  
 White, A., and Sons

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 Rait, G. L. F.C.S.

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 Bracher & Co. (Automatic distilling)  
 Brinjes and Goodwin  
 Hughes, C. (Dissoolving Views)  
 May, Roberts (Water-bath)  
 Orme (Scientific)  
 Perken, Son and Rayment (Scientific)  
 Rogers, P. and Co.  
 Rothermel, Paul (Vinegar)  
 Southall Bros. and Barelay  
 Wolfers, Otto (Balances)

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 Bailey, W. H., and Son  
 Bole Hall Mill Co.  
 Robinson and Sons

**BATH GLOVES**  
 Maw, Son and Thompson  
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 Bowdlear and Co.  
 Kemp W., and Son

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 Hearson, Squire and Francis  
 Hewlett and Sons  
 Howards and Sons  
 May and Baker  
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 Drug Co.

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 James, Dr. Prosser  
 Keene and Ashwell  
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 Loissette, Professor  
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 Robinson, G. H.

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 Hunt, W. F., and Co.

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 Barnett and Foster  
 Bratby and Hinchliffe  
 Brellitt's (Lim.)  
 Brooks, Joel (Perfumers)  
 Curle, J. A.  
 Dunlop, Mitchell and Co. (Tubes)  
 Hearn, E. A., and Co.  
 Issacs and Co.  
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 Maw, Son and Thompson  
 Poths  
 Toogood

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 Sherlock Bros. Hair  
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(Price Current)  
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Fletcher, Fletcher & Stevenson  
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ceutical)  
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May and Baker  
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Petri Bros.  
Prunk, Davis and Co.  
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Wood, Vincent

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Orme and Co.  
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Ingram and Son  
Lynch and Co.  
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Woolley, Sons and Co.

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Stevenson and Howell  
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Fletcher, Fletcher & Stevenson  
Hearon, Squire and Francis  
Oldfield, Pattison and Co.  
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septic Poultice and Vinegar)  
**FACE POWDERS**  
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Toogood, W.

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Goudall, Backhouse and Co.  
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King, F., and Co. (Desiccated)  
Lazenby, E., and Son  
Mottershead and Co. (Benger's  
Food)  
Nestle, H.  
Spring and Co. (Kef.)  
Van Abbot (Diabetic)

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Hay, W. (Essence)  
Mills, R. M.

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rine Tablets)  
Maw, Son and Thompson  
Price's Candle Co.

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Burroughs, Wellcome and Co.  
Bush, W., and Co.  
Evans, Sons and Co.  
Hearon, Squire and Francis  
Wright, Layman and Umney

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Prunk, Davis and Co.

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Dinneford  
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Shirley, Proprietor  
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Evans, Sons and Co.  
Hockin Wilson and Co.  
Maw, Son and Thompson  
Newbery and Son  
Shirley  
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Sherwin, G. E.  
Werner and Pfeiderer

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De Pass, E. A. & Co. (Petrolina  
Grindley (Petroleum Jelly)  
Singleton's Eye Ointment

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Raphael, J., and Co.

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Beecham (Pills)  
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Burgess, E. (Lion Ointment  
Crouch, F. B. (Wafers)  
Edwards and Son  
Evans, Leasher (Hawley's  
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Hirst, Brooke, and Hirst  
Holloway (Pills and Oint.)  
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Lalor (Phosphodyne, &c.)  
Lincoln (Clarke's Mix.)  
Loecker, Dr. (Wafers)  
Lynch and Co.  
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Newbery and Son  
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Ratti and Co. (Meuphrosine)  
Richter's, Dr. (Pain Expeller)  
Roberts (Foreign)  
Savars  
Singleton's Eye Ointment  
Soul, W. H., and Co.  
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Swift Specific Co. The  
Thompson, Millard and Co  
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Greensill, T. S., and Sons  
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Mann, C. A., and Co.  
Maw, Son and Thompson  
Newbery and Sons  
Patey and Co.  
Pear's Soap (Dirty Boy)  
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Hans, Sons and Co.  
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Heron, Squire and Francis  
Hewlett and Sons  
Hill and Son  
Hopper, B. and Co.  
Hudson, and Son  
Hutch (Conc. Tinctures)  
Hutcliffe (Nitroglycerin)  
Hutcliffe  
Hutcliffe Bros.  
Hutcliffe & King  
Hutcliffe, J. A., and Co.  
Hutcliffe, Sons  
Hutcliffe (Various)

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Byron, Bage, and Co.  
Cress, Willows, Francis  
Burgoyne, Burdidge  
Burroughs, Wellcome  
Various  
Dean, Floc, Hart  
Hans, Sons and Co.  
Hatcher (Lqrs. for Syrups)  
Heron, Squire and Francis  
Hewlett and Sons  
Hill and Son  
Hopper, B. and Co.  
Hudson, and Son  
Hutch (Conc. Tinctures)  
Hutcliffe (Nitroglycerin)  
Hutcliffe  
Hutcliffe Bros.  
Hutcliffe & King  
Hutcliffe, J. A., and Co.  
Hutcliffe, Sons  
Hutcliffe (Various)

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Hill, T. and H.

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# "ST. JACOBS MIXTURE"

## AN IMPORTANT "UNDERTAKING."

"WHEREAS the CHARLES A. VOGELER COMPANY, of London, and Baltimore, U.S.A., are the registered proprietors of a TRADE MARK consisting of the words 'ST. JACOBS OIL.' And Whereas I have, by my shopman, sold a mixture not of the manufacture of the CHARLES A. VOGELER COMPANY, and called by me 'ST. JACOBS MIXTURE.' In consideration of the CHARLES A. VOGELER COMPANY not bringing an action against me for violation of their rights, I hereby undertake and agree with the CHARLES A. VOGELER COMPANY not again to use the words 'ST. JACOBS MIXTURE,' and not to use the words 'ST. JACOBS OIL,' or any other similar words, upon or in connection with any preparation not of the manufacture of the CHARLES A. VOGELER COMPANY, and to pay a sum of £2 as damages, and £2 agreed expenses; and it is agreed that this undertaking may be used and published by the CHARLES A. VOGELER COMPANY in any form they may think fit.

"Dated this 16th day of December, 1887, at Bradford, Yorkshire."

NOTE.—The above is over the signature of one of the leading Chemists of Bradford, but, as a matter of courtesy, we have consented to withhold his name from publication. We are fully determined to protect our TRADE MARK rights and the public from being imposed upon by unprincipled Dealers, who in order to obtain a larger profit, palm off worthless, and, in many cases, injurious compounds, when ST. JACOBS OIL IS CALLED FOR.

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**THE CHARLES A. VOGELER CO.**  
**45 FARRINGDON ROAD, LONDON.**

Telephone No. 6714. Cable and Telegraphic Address, "RUMATIX LONDON."



# Kepler Solution.

## A Plain Talk.

No one in this day questions the value of cod liver oil but its utility is lessened in proportion as it is indigestible and disagreeable to take. We submit the following

## Three Propositions.

1st. The Kepler Malt Extract with Cod Liver Oil is the only preparation in which the oil is dissolved, all other malt products and oil being mere emulsions, or mechanical mixtures.

2nd. The Kepler Solution is the pleasantest form of cod liver oil extant.

3rd. Being a Solution, no "emulsion" can compare with it for digestibility and assimilability.

## The Solution *versus* Emulsions.

In the Kepler Solution the oil is molecularly incorporated with Extract of Malt, while in emulsions it is simply suspended in a state of mechanical subdivision. No form of cod liver oil can compare for digestibility with that which has been *dissolved*, and is therefore akin to the condition of oil in the tissues. The only people who dissent from this proposition are the makers and others interested in the divers forms of emulsions. Here is the report of the *British Medical Journal* upon the Kepler Solution:—

"This preparation is a decided novelty, and is a great advance on anything hitherto attempted in the direction. . . . The production of a solution of cod liver oil in malt is a great advance, and marks an epoch in the history of rational therapeutics." The Kepler Solution is vastly superior to all cod liver oil emulsions, for these are made with alkalies, excess of essential oils, gum, glucose, water, &c.

## The Pleasantest Form of Oil.

Those who complain that they have got "A Black Oily Mixture," instead of the beautiful "Kepler's Solution," will, in future, be careful to specify "Kepler's," they will not be disappointed by getting what they do not want.

The *Medical Press and Circular* says:—"The Kepler Solution is the most palatable and easily digested of any form of cod liver oil."

The *Lancet* reports:—"It has hardly any of the taste of the oil. Many can take it easily who cannot take the oil."

The *British Medical Journal* reports:—"The taste of the oil is agreeably disguised, its nutritive qualities are greatly increased, and it is rendered easy of digestion."

## The best Vehicle for Ol. Morrhuæ.

The vehicle used in the *only solution of cod liver oil made* is the Kepler Extract which should not be confounded with a peculiar product of fancy name.

A recent comparison of a black preparation of jumbled malts with Kepler Extract made from unadulterated barley was like comparing a bread made of all manner of flours with that made from one. The Kepler Malt Extract is not black, contains no glucose, and does not have the taste of being "doctored up" or of having stood in barrels. It is as delicious as a mead or creamy liqueur. The following verdict on the vehicle of the Kepler Solution tells whether or not it is the best malt preparation there is:—

The *Lancet*:—"It is the best known and most largely used."

*Medical Press and Circular*:—"The most palatable and easily digested."

*Dr. Yandall*:—"It has by far the choicest flavour of any I have ever seen."

## Nutritive worth of Kepler Solution.

As the Kepler Malt Extract is rich in diastase, and therefore a promoter of digestion, and is most abundant in carbohydrates and proteids, and as nutritious as cream, its nutritive value is unexcelled. It is—

1. A most powerful, fattening, strengthening agent.
2. The best roborant in bronchial troubles, phthisis, &c.
3. The choicest form of oil for children with anæmia, scrofula, rickets, etc.
4. A most natural and effective agent for overcoming infantile constipation.
5. The purest and best of all forms of cod liver oil to prescribe for dyspeptic and fastidious patients.

## Old-time Objections Overcome.

The Kepler Solution—

1. Does not excite nausea.
2. Is not malodorous.
3. Is not unsightly.
4. Does not derange digestion like emulsions.
5. It is not voided *en masse*.

## "Summing up."

The *BRITISH MEDICAL JOURNAL* reports:—"The Kepler Solution is an ideal form for the administration of fat."

The Kepler Solution and Kepler Malt Extract supplied in bottles, containing  $\frac{3}{4}$  lb. and  $1\frac{1}{2}$  lb., at 22s. and 38s. per doz., subject to usual discount. Retail prices 2s. 6d. and 4s. Supplied by all Wholesale Houses throughout the World.

BIRROUGHS, WELLCOME & CO., Snow Hill Buildings, LONDON, E.C.

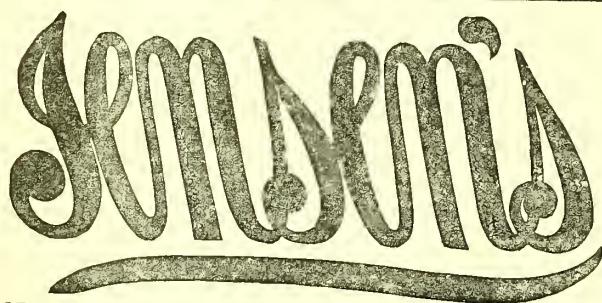
## Reduced Prices of Quinine "Tabloids."

Quinine Bisulphate, ½ gr., Vinaigrette style (oval bots., 50 in each)	Retail	Per doz.
" " " 100 in bottle	1/0	8/0
" " 1 gr., Vinaigrette style (oval bots., 36 in each)	1/6	12/0
" " 1 gr., 100 in bottle	1/0	8/0
" " 2 gr., Vinaigrette style (oval bots., 24 in each)	1/9	15/0
" " 2 gr., 100 in bottle	1/0	8/0
" " 3 gr., Vinaigrette style (oval bots., 24 in each)	2/9	24/0
" " 3 gr., 100 in bottle	1/6	12/0
" " 5 gr., Vinaigrette style (oval bots., 24 in each)	3/9	34/0
" " 5 gr., 100 in bottle	2/0	17/6
" " 5 gr., 100 in bottle	5/6	50/0

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December 9th, 1887.

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## COD LIVER OIL.

The only Oil in the World guaranteed as made solely from perfectly fresh Livers, and therefore sweet and pleasant to taste and smell. Guaranteed non-congealable, and not liable to repeat.

ICEBERG BRAND.

In bottles only, to retail at 1s., 2s., 3s. 6d., &amp; 6s. 6d.

Norwegian Oil in bulk, supplied in Original Barrels or in Winchester, at prices according to quality and quantity, to retail under Chemist's own name.

HERTZ &amp; COLLINGWOOD, 101 Leadenhall Street, London.

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## SWIFT'S SPECIFIC

Is Nature's own remedy, made from roots gathered from the forests of Georgia. The method by which it is made was obtained by a half-breed from the Creek Indians who inhabited a certain portion of Georgia, which was communicated to one of the early settlers, and thus the formula has been handed down to the present day. The cut represents the method of manufacture 20 years ago, by Mr. C. T. Swift, one of the present proprietors. The demand has been gradually increasing until an extensive laboratory is now necessary to supply the trade.

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ADVERTISEMENTS of employers and assistants can be received by us up to the first post on Friday mornings, and will be inserted in the current week's issue.

## POST-CARD COMPETITIONS, 1888.

## No. 2.

MR. BLANK, chemist and druggist, Dull Town, wishes to commence advertising in his local paper in March next, and will give a guinea for the best suggestion for a two-inch advertisement in the columns of the paper. Specimens in competition to reach the editor of THE CHEMIST AND DRUGGIST before the end of the current month—to be drawn up on post-cards. Special articles may be advertised, or the announcement may be general in its terms. It seems necessary to state that Mr. Blank is an imaginary being, and that the advertisement to be drawn up in his name is not to refer to actually existing proprietary articles. What we want is to get some clever models of advertising for chemists in provincial papers.

POST-CARD COMPETITION No. 1.—We regret that our remaining specimens of the Shakespearian competition are still excluded for want of space. We shall make a point of disposing of that business next week.

## PARLIAMENTARY NEWS.

(From our Gallery Correspondent.)

SINCE Parliament has resumed its sittings members have been occupied in discussing the Irish question almost exclusively, and though, as has been said, the session opened like a lamb, there is every prospect that ere long the Nationalist members and their allies will attempt to "make it hot" for the Government. It is early yet to say what legislation of interest to our readers is likely to engage attention, but on Thursday night the Earl of Milltown introduced in the House of Lords his Bill to amend the Pharmacy Acts, and it was read a first time.

The following questions were put in the House of Commons on Thursday night:—

## ARMY MEDICAL SERVICE.

Sir W. Barttelot asked the Secretary of State for War whether any alteration was contemplated in the Medical Service of the Household Troops; if so, what was the nature of the proposed alteration.

Mr. Stanhope said the whole question of the organisation of the medical department of the Army was engaging his earnest attention. Several of the details were still under consideration, and he must ask the hon. member to wait until the presentation of the Army Estimates, when he hoped to be able to explain fully the arrangements he was about to make.

## HYDROPHOBIA.

Viscount Curzon asked the President of the Local Government Board whether it was the intention of the Government to give effect, by legislation or otherwise, to the recommendations of the Select Committee of the House of Lords on rabies in dogs: and whether it was in his power to lay upon the table of the House a return showing the number of deaths from hydrophobia during the last ten years.

Mr. Ritchie said the subject of rabies was receiving the attention of Government and the Privy Council, who were in communication with some of the local authorities with reference to the restrictions which might be necessary in connection with it. If it should be considered that further powers were required they would be asked for. If the hon. member moved for a return of the number of deaths in England and Wales from hydrophobia from 1877 to 1886, the motion would be accepted by the Government. The average annual number of deaths during the ten years in England and Wales was 40, and in London 7. The total number of deaths from hydrophobia in England and Wales in 1885 was 60, and in London 27; in 1886 it was 26, of which 9 were in London; and in 1887 the number of deaths from the disease in London were 2. He was unable to state the total number for England and Wales for the year 1887.

## DIARY FOR NEXT WEEK.

Secretaries of societies are requested to send early information of approaching meetings.

## Monday, February 20.

Society of Arts, at 8 P.M. Mr. A. Gordon Salamon, F.C.S., on "Yeast, its Morphology and Culture" (Lecture IV.). Society of Chemical Industry, London Section, Burlington House, at 8 P.M. Mr. J. B. M'Arthur on "The Bromine Absorption of Mineral Oils"; Mr. Kingzett on "Camphor Oil and Oil of Sunflowers"; Mr. A. G. Green on "A New Series of Cotton-colouring Matters"; Professor Meldola and Mr. E. H. Moritz on "Kjeldahl's Method of Nitrogen Determination."

## Tuesday, February 21.

Royal Institution, at 3 P.M. Professor G. J. Romanes, on "Before and After Darwin."

## Wednesday, February 22.

Society of Arts, at 8 P.M. Mr. Swire Smith on "The Technical Education Bill."

## Thursday, February 23.

Royal Institution, at 3 P.M. Professor Parry on "Early Secular Choral Music"; with illustrations.

Midland Counties Chemists' Association, Grand Hotel, Colmore Row (Birmingham), at 8.30 P.M. "The Servants and Enemies of Plants," by Mr. J. F. Liverseege, pharmaceutical chemist. "Note on Lin. Terebinth.," by H. W. Jones, F.C.S.

Chemists' Assistants' Association, 103 Great Russell Street, W.C., at 9 P.M. A. C. Stark on "The Evolution of the Chemist and Druggist."

## Friday, February 24.

Royal Institution, at 9 P.M. Dean Bradley on "Westminster Abbey."

Society of Arts, at 8 P.M. Sir William W. Hunter on "Facts Regarding the Religions of India, and their Influences on the Social Progress of the People."

## Saturday, February 25.

Royal Institution, at 3 P.M. Lord Rayleigh on "Experimental Optics."



## Metropolitan Reports.

A GREAT ROBBERY OF OPIUM was effected at the latter end of last week at the Victoria Docks. Few particulars have leaked out, but it is known that the opium was landed from the *Tenasserim*, from Rangoon, and was valued at several hundreds of pounds. It is supposed that the thieves secreted themselves in the dock company's warehouse all night, and made their escape with the booty when the doors were opened in the morning.

S. MAW, SON & THOMPSON'S CRICKET CLUB.—The eighth annual dinner of this club was held at the Holborn Restaurant, on Friday, February 10, under the presidency of Mr. John Banks, supported by Mr. Charles T. Maw, Mr. J. Holdsworth, and others. About 100 members and friends gathered together. This club during the past season scored seven victories, one tie, and six defeats. A formidable list of twenty-four matches has been arranged for the coming season, including a day match with the Redhill C. C. at Redhill on Whit Monday, with Mr. C. T. Maw's eleven at Nutfield, Honor Oak C. C. at Honor Oak, Hanson, Son & Baxter's C. C., Causton's C. C., &c. After dinner the usual toasts were proposed and responded to, and a very enjoyable evening was spent, songs being rendered in good style by Messrs. Carter, Dowell, and Leng; a glee party, organised by Mr. Whiteman, delighted the audience by their musical skill. The evening's proceedings reflected great credit upon the stewards and the hon. secretary, Mr. Robert Leng.

ARMED BURGLARS AT CRESSWELL BROTHERS' SPONGE WAREHOUSE.—At Bow Street Police Court on January 12, John Williams (32), who refused his address, cabinet-maker, George Harrison (22), electric-wire man, and Charles Rice, spring-maker, were charged with being concerned in breaking into and entering the warehouse of Cresswell Brothers, sponge importers, No. 2 Red Lion Square, and stealing therefrom on December 31 eight boxes of cigars, an overcoat, several cheques drawn by Cresswell Brothers, two hills of exchange, and twenty blank cheques. They were originally charged at Marlborough Street the previous morning, being found possessed of hurlarious instruments; but it was stated, when they were placed in the dock, that a burglary had been committed in Red Lion Square, with which it was believed the prisoners were connected. They were accordingly removed to Bow Street, and charged before Sir James Ingham, and after sufficient evidence had been given were remanded, and brought up again on January 16, when they were committed for trial, Rice being allowed out on bail. On February 15 they were tried at the Middlesex Sessions, before Mr. Commissioner Kerr, and defended by Mr. Abinger. Mr. Frederic R. Cresswell stated that on December 31 he discovered that the office had been broken into; the window was open, and there were marks of a chisel on the window-ledge and shutters. There were also four holes cut in the shutters about the size of a florin. An entrance had by this means been effected, and the safe in the strong-room was broken open. Twenty blank cheques had been torn from the chequebook, eight boxes of cigars stolen, two bills of exchange, and other documents. Detective Crackitt, of the C Division, deposed to seeing the three prisoners in Glasshouse Street on January 11. He caught hold of Williams, the others being stopped by other officers. Williams put his hand in his pocket, and the witness asked him what he had there. Williams replied, "Only a revolver." Witness said, "Give it to me, or I'll brain you." Constable Storey then came up and took the revolver away, which was loaded in five chambers. On Williams he found some other cheques which were stolen on the night of the robbery, one of which was filled up for 15*l.* 15*s.* On the prisoner's lodgings being searched more cheques were found, and also some house-breaking implements. Inspector Langrish, E Division, said he arrested Harrison, who was also carrying a revolver loaded in six chambers, and had in his possession several of the blank cheques. Mrs. Rice, the mother of the younger prisoner and also of Williams, said her sons had lodged in her house for five years, and that the tools found in the prisoners' bedroom were used in cabinet-making, and had been left there by Harrison to be taken care of. There being no case against Rice, the judge ordered a verdict of acquittal

to be entered. Evidence was then produced showing that Williams had undergone a term of seven years' penal servitude and five years' police supervision, in the name of Thomas Price, and also other terms of imprisonment. The learned Commissioner sentenced Williams to seven years' penal servitude, and Harrison, against whom nothing was previously known, to eighteen months' imprisonment with hard labour. The officers engaged received a high commendation from the grand jury for apprehending the prisoners, in which his Lordship concurred.

CHEMISTS' ASSISTANTS' ASSOCIATION.—There was a larger number of members than usual present on Thursday evening to hear Professor Dunstan's lecture on "The Formation of Alkaloids in Plants." The subject is a fascinating one to the pure chemist, and it may be said at the outset that Professor Dunstan treated it in a fascinating manner. He stated that botanists say that alkaloids, being ammonia derivatives, are in all likelihood formed in plants from ammonia. So far had we got in theory, until recently it was shown that many alkaloids are pyridine compounds; one alkaloid (pilocarpine) has, in fact, recently been made from pyridine and lactic acid. Nearly all our knowledge in this subject has been derived from pure chemical research, not from the so-called practical researches which are so much cried out about in this country and may yet be the ruin of it. After this preliminary fling the lecturer went on to show that from starch in plants are formed the carbohydrates, and from these the organic acids with which alkaloids are always found associated. Moreover pure chemistry has shown that certain of the organic acids are changeable into pyridine compounds, and in this change Professor Dunstan saw the first step in the formation of alkaloids. Thus meconic acid by heat is changed in stages to comenamic acid (a pyridine carboxylic acid), which on heating with ammonia is transformed into comenic acid, and that in its turn can be reduced to oxypyridine. So, therefore, we come to the formation of alkaloids. It was then shown that similar stages of transformation are possible with chelidonic, malic and citric acids, and this done the first part of the lecture was over. In the next Professor Dunstan theorised, bringing in the benzene and pyridine rings with good effect. Taking, for example, the constitution of comenic acid  $C_8H_4O_2$ , he explained that it had been proved that this compound contains an OH, a COOH, and a CO group, but how the other O of the compound is placed had baffled everybody until Baeyer found it to exist in combination with the two carbon atoms at the bottom of the ring, so that when ammonia ( $NH_3$ ) reacts with this acid  $NH$  takes the place of the O and  $H_2O$  is set free, a pyridine compound being found. With this basis the lecturer proceeded to show how all the organic acids which he named were transformed into pyridine compounds, taking the acids according to their degree of complexity, and demonstrating how carbonic dioxide and water were evolved in the process. This demonstration on the blackboard recalled the fact that in vegetation a similar evolution with hy-products takes place, and led to the thought that that evolution has something to do with the formation of alkaloids. Between the organic acids and the alkaloids there may be intermediary products; these have to be discovered before we know how alkaloids are formed, and to this discovery Professor Dunstan asks pharmacists to apply themselves. Mr. Dymond, who presided, commented on the subject; so also did Messrs. Ellwood and McDiarmid, who proposed a vote of thanks.

POISONING CASES.—An inquest was held at Wolverhampton on February 10, regarding the death of Mary Charlotte Holland (21), who, in consequence of the arrest of her father, went to the shop of Messrs. Reade Brothers, chemists, Victoria Street, and bought 2*l.* worth of oxalic acid, half of which she afterwards swallowed, dying from its effects. Mr. Arthur Waldron, assistant to Messrs. Reade, stated in evidence that the girl asked for the acid for cleaning feathers, and was warned regarding its poisonous nature. Esther Bacon, a charwoman, of Great Yarmouth, who, as reported at the end of last year, tried to kill her three children by administering a quantity of precipitate powder to them, was at the Norfolk Assizes on Tuesday found guilty of intent to murder. Sentence was deferred.



## Provincial Reports.

*Items of news, and newspapers containing matters of interest to the trade, sent to the Editor, will much oblige.*

### BIRMINGHAM.

**M. ERNEST F. J. LOVE, M.A.** Cantab, Demonstrator in Physics at the Mason College, has received an intimation from the Agent-General for Victoria (Sir Graham Berry) that he has been elected Assistant-Lecturer in Physical Science in the University of Melbourne.

**BIRMINGHAM AND MIDLAND ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.**—At the thirteenth annual meeting of the association, held at the Council House on Thursday week, Dr. Bostock Hill delivered his presidential address, taking as his subject "Sanitary Jottings." In the course of his remarks Dr. Hill expressed himself in favour of the Margarine Act, which, he was pleased to hear, had considerably diminished the consumption of the compounds or substitutes for butter now that they were sold under a distinctive name. A vote of thanks was passed to the president, who, in reply, remarked that margarine, if sold at its proper price, would not compete with butter, for it was not worth 4d. or 5d. a pound.

**A DISPENSARY QUESTION.**—A proposal to establish what is regarded as a "provident department" in connection with the Birmingham General Dispensary has given rise to much controversy in the town, and many letters have appeared in the local press questioning the legality of the procedure. The matter is one of considerable importance to private medical practitioners and dispensing chemists. The dispensary proposes to omit from its relief tickets the words "objects of charity," and it proposes, in effect, to sell to anyone who chooses to buy a pound's worth of them, tickets which may be distributed to any person whatsoever their class or whether "objects of charity" or not. It proposes further to sell at a slightly higher price additional tickets, which may be used in the same manner. This new regulation, it is obvious, cuts directly at the principle on which the other medical charities of the town are conducted; it excludes inquiry into fitness, and it thus uses the money of ordinary subscribers for the advantage of persons who, if examination were made, might be found well able to pay for medical advice on their own account. The innovation is looked upon with disfavour not only by other local charities but also by private practitioners and dispensers, whom, it is considered, it will seriously affect.

**FRAUDULENT MEDICAL CERTIFICATES.**—Mr. Weekes the Deputy-Coroner for Birmingham, on Tuesday afternoon investigated a case which he described as "full of illegalities from beginning to end." On Thursday fortnight, Minnie Audley, 3, who resided with her parents at 298 Farm Street, fell down and broke her arm. Her injuries were attended to at the General Hospital, but owing to the child's aversion to the hospital she was afterwards attended by Dr. Bailey, of Great Hampton Row. The child died on Friday week. The next day the mother and a neighbour went to Dr. Bailey's surgery to get a certificate of death. Dr. Bailey was out, and the assistant, Donald MacDonald, gave them a certificate. They took it to the registrar, and he signed it and communicated with the coroner. Hence the request. The assistant upon being called said that Dr. Bailey signed the certificate before he went from home, and left with him. Dr. Bailey expected two patients to die, and he instructed a witness that he might fill in the body of the certificates if the patients died in his absence. The child, however, was not one of these patients. He wrote on the form that Dr. Bailey gave him that death was due to convulsions, and did not state the secondary cause. The deputy-coroner, in summing up, remarked that he should forward a full report of the inquiry to the Registrar-General, in order that he might, in his discretion, put forth the penal clauses of the Act in relation to the granting of fraudulent certificates. A verdict of "Accidental death" was returned.

**ACTING AS AN APOTHECARY.**—A case of considerable interest came before Judge Jordan at the Burslem County

Court on Monday, when Edward Middlebrook, of Smallthorne, was sued by the Society of Apothecaries, London, to recover a penalty of 20*l.*, under the Apothecaries Act, for practising as an apothecary without having obtained the necessary certificate. Mr. Paine appeared for the plaintiffs, and Mr. Sword represented the defendant. The case for the plaintiffs was that for some time past the defendant had been conducting an extensive business in the neighbourhood of Smallthorne as an apothecary and surgeon, without having the necessary legal qualification. He had issued dispensary cards signed "E. Middlebrook, L.M. Dublin, accoucheur, associate of the British Medical Reform Association, &c.," and attended various persons suffering from bronchitis, scarlet fever, and other maladies. He prescribed medicine, and in several instances where death had occurred gave medical certificates. Moreover, he had obtained the appointment of surgeon to a lodge of Oddfellows, and to him candidates for membership of the lodge had been sent for examination, in order that he might certify as to their state of health and bodily fitness for membership. When the summons in the action was served upon the defendant he had a brass plate in front of his house bearing the words "E. Middlebrook's Dispensary," but two days later the name of a properly qualified practitioner was substituted for that of the defendant. The Registrar of Births and Deaths for the sub-district of Norton-in-the-Moors produced half-a-dozen certificates of death signed by the defendant, and evidence was given by several persons to the effect that the defendant had attended relatives of theirs in illness and prescribed medicines which the witnesses obtained from the defendant's dispensary. His Honour said that a *prima-facie* case had been made out, and it was useless calling evidence to multiply the cases in which the defendant had practised as an apothecary. Mr. Sword, for the defence, then proceeded to argue that there was no case, as plaintiffs had not proved that defendant had received fees. This assertion being satisfactorily met, Mr. Sword continued to argue that the Act was intended to prevent the practice of medicine by means of charms, and that any registered medical practitioner who was not an apothecary was liable to prosecution under the Act. He submitted that the defendant was an M.D. of the Ohio University, and had held responsible positions in hospitals. The judge, however, after quoting Justice Gresley's definition of an apothecary, held that defendant had infringed the Act, and although he might be an able man the only course open to him was to inflict the penalty of 20*l.* and costs.

### CHATHAM.

**LOCAL v. LONDON DRUGGISTS.**—At a meeting of the Medway Board of Guardians on Thursday, Mr. Brain said that by the books it was shown that some sixty articles of drugs and drysalters had been procured from a wholesale house in London which might have been very well contracted for by the local chemists and tradesmen generally. The Clerk said that the matter had been threshed out before. The Chairman (Mr. A. Stigant) said the doctor considered that by the present system he obtained better articles at the wholesale house in London than he could locally. Mr. Brain, as a practical man knowing the price of drugs, &c., said they could all be got through the local tradesmen as good and as cheap as if they were obtained from a wholesale druggist or drysalter in London. Did they mean to tell him they could not get a hundredweight of Epsom salts at Chatham without going to London? Mr. Phillips considered that articles ought to be purchased in the town when they could be got. The Chairman said that when the drugs and drysalters were purchased in Chatham they got inferior stuff, and although it was a little cheaper to buy locally, it was dearer in the end, because of the bad quality. Mr. Lamb considered that a reflection upon the trade of Chatham, and it might just as well be said that they must go to London for everything. The Chairman said he only knew by what was told him by the officials of the house. It was ultimately agreed to revise the list of articles obtained from London and consider the same at the next meeting.

### DURHAM.

**THE PAUPERS AND MEDICAL SCIENCE.**—At the meeting of the Durham Board of Guardians on February 11, the Rev.



Jas. Lawson presiding, an application in the following terms was made by the medical officer to the Union (Dr. E. Jepson):—"To the Guardians of the Durham Union.—Gentlemen,—I wish to ask your sanction to my making *post mortem* examination of all paupers dying at the workhouse or hospital, providing that the relatives make no objection to the examination. Also that I may introduce a pupil to accompany me in my visits to the hospital. Also that I may perform any operation which I consider necessary on any pauper of the hospital, and obtain what further medical help I may require for the operation, leaving the question of remuneration for the after consideration of your Board.—EDWARD JEPSON, Medical Officer of the Workhouse." The guardians were unanimously indignant at the application, which was rejected unceremoniously. They ascertained that a *post mortem* examination had been made in one case without authority, and this they resolved to report to the Local Government Board.

#### LANDPORT.

THE CHARIOT DOCTOR.—A Landport correspondent sends the following:—In reference to the American quack mentioned in your Brighton news of last week I can furnish you with a few more particulars of this very successful genius. He has paid us a visit and, I should say, did as well, or nearly so, here as at Brighton. In the first place, he drives round the town with a band, then takes out teeth for nothing. As many people as like to walk up can be operated on. He is very quick, has a good set of instruments, and the tooth is out, tossed into the person's hat, the hat clapped on his head, and he is being assisted down the carriage on the opposite side in less time than it would take an ordinary chemist to select his instrument. If a young woman or lad commences to holla there is no time to finish, and the band playing all the time drowns whatever cry is made. After about fifty teeth have been extracted gratis and a good crowd assembled he delivers a lecture, and then invites any martyr to rheumatism to walk up and be cured. He understands the lost art of massage, and by vigorous rubbing and repeated injunctions to the patient to try hard himself, the patient, after half an hour's hard rubbing, can manage to walk a great deal better than previously. Thus is a miracle wrought, and when he commences to sell the medicine and oil the gaping public buy with eagerness—in fact here they fought and shoved one another to get up to the carriage. At night he used an incandescent electric light on his forehead, fastened by a band round the head, to enable him to see well into the people's mouths. The medicine (Prairie Flower) I found was what I believe to be Cape aloes and capsicum dissolved in a strongish solution of carbonate of potash. The Indian Oil was cheap fish oil scented with ol. origanum. Much of that which is sold from the cart has no revenue stamp on it, although it is liable, so if some of your readers choose they can discount the gentleman's profit and benefit the revenue at the same time.

#### LIVERPOOL.

SUICIDE WITH CHLORAL.—An inquest was held on Saturday, before Mr. Clarke Aspinall, the Liverpool coroner, touching the death of Charles Manley, aged 25, a theatrical acting manager, who belonged to Manchester. It appeared from the evidence that the deceased had been engaged to a Miss Crane, an actress, but the engagement was broken off for two months until Manley got a situation. He had an interview with Miss Crane on Thursday evening and parted friendly; but Miss Crane thought he looked strange, and when he left followed him to his lodgings, where she found him insensible. He had taken an excessive dose of chloral and did not recover from its effects. It was proved that deceased had been in the habit of taking chloral and suffered from a weak heart.

THE RUNCORN ALKALI COMPANY held its annual meeting in Liverpool on February 10, Mr. A. P. Fletcher presiding. The report showed that the gross profits amounted to 32,695 4s. 2d., from which office expenses, salaries, &c., were deducted, leaving a balance of 28,142 14s. 4d.; balance from last year, 8,280 9s. 3d.; less directors' fees, 1,000 l.; leaving an available balance of 35,523 l. 3s. 7d., which it is proposed to appropriate as follows:—Proposed dividend of 23s. per share,

13,800 l.; depreciation fund, increasing the same to 110,000 l.—15,000 l.; carrying forward a balance of 6,723 l. 3s. 7d. During the year the company has added to their ammonia-soda plant to the extent of 12,026 l. 13s. 8d., and the directors anticipate good results from this expenditure. The loss entailed in producing alkali had been covered by the profits on bleaching powder. The chairman moved the adoption of the report, which was carried unanimously. Mr. Fletcher and Mr. W. Hayes were re-elected, the former chairman and the latter a member of the directorate.

#### MANCHESTER.

ACONITE POISONING.—The housekeeper of Mr. Henry Anderson, surgeon, was last Monday told she would have to leave. She became very violent, and attempted to commit suicide by taking poison, but was prevented. Afterwards, however, she went into the surgery, got some aconite, swallowed it, and died a quarter of an hour after she was admitted to the Ancoats Hospital.

SUSPECTED DEATH BY POISON.—An inquest was held at Farnworth on Wednesday on the body of Betty Dyson, a married woman, 27 years old, who died suddenly on Sunday last. It was stated that, as the result of a *post-mortem* examination, it was discovered that some irritant or poison had been introduced into the stomach. The contents of the stomach were ordered to be sent to an analyst at Manchester for examination, and the inquiry was adjourned.

#### NOTTINGHAM.

AN ORDER IN DISPUTE.—At the local Court on Monday the action of the Nottingham Chemical Company against Mr. R. Birkett, a miller, of Balderton, for 5l. 12s. 5d., the value of two casks of tannate of soda, came up for trial. From the evidence of Samuel Morris, plaintiffs' traveller, it appears that the tannate is used for preventing incrustation of boilers. Morris had taken an order in April last from the defendant for a barrel of the tannate, to be charged 18s. per cwt. This was delivered, and when Morris called again, in July, he was informed, contrary to a previous statement, that the tannate was doing no good. Defendant, however, ordered another barrel, at 16s. per cwt., and some time afterwards complained of its uselessness. Witness had guaranteed that the tannate would be efficacious if it were used regularly for about nine months. The case, after some further evidence, was adjourned.

NOTTINGHAM AND NOTTS CHEMISTS' ASSOCIATION.—A well-attended meeting of the associates of this association was held on Friday, February 3. Mr. William Widdowson, hon. sec., presided. Mr. Eberlin read a paper, entitled, "An Evening with Microscopic Crystals," in which he gave a description of the polariscope, and the action of polarised light on various crystals at different angles. He endeavoured to make this more clear to those present by diagrams, &c., on a blackboard. He afterwards exhibited crystals of santolin, borax, phloridzine, salicine, copper sulphate, hippuric acid, beetroot sugar, &c.; then dealt at some length on the great advantages to be derived from microscopic study, its usefulness as applied to pharmacy, and exhorted his hearers to make themselves more acquainted with this useful branch of study. A vote of thanks was accorded to Mr. Eberlin.

#### SHEFFIELD.

HERRING'S TREATMENT.—It is said that the bath which Mr. Herring, of Leeds, regards as so miraculous for the cure of smallpox contains as the active ingredients permanganate of potash and hyposulphite of soda. He keeps his existence known to the public here by driving about in a cab upon the roof of which is displayed a large galvanised iron bath. Few plague-stricken cities of modern times have had so many remedial schemes submitted to them as Sheffield, and none has swallowed everything so faithfully as this Yorkshire town.

SHEFFIELD PHARMACEUTICAL AND CHEMICAL SOCIETY.—At the meeting held on Wednesday, February 8, Mr. Ellinor in the chair, a lecture was delivered by J. O. Arnold, Esq., F.C.S., on "The Present Position of Toxicology." The



poisons specially dealt with were such as, by their frequent use in medicine, are of interest to pharmacists, and were divided into two groups. The first consisted of poisons detected with difficulty, including colchicin, aconitine, digitalin, atropine, cantharadin, and morphine; the second comprised readily separable and recognisable poisonous substances, notably strychnine, prussic acid, and arsenic. The general test for the first group was explained, and the lecturer pointed out a grave difficulty which existed, for, excluding opium alkaloids, none of the members of this group responded to any decisive chemical tests. The discovery of the existence of alkaloids developed after the death of the organism had increased this difficulty, and it was urged that an enormous amount of work required yet to be done before analysts could honestly express a decided opinion in many cases of suspected poisoning. The chief physiological tests were next detailed, the audience being warned that even these were not yet proved to be peculiar to known alkaloids. Dialysis as a means of separating crystalline from residual organic matter was declared to be a snare and delusion. In cases of opium poisoning meconic acid should be looked for rather than morphine. It was asserted that the data on which operators have certified to finding the one-hundredth of a grain of morphine (one, indeed, swearing to the detection of the one-two thousandth of a grain) are manifestly absurd. Grip 2 gives infinitely less trouble, the reactions being highly characteristic. Arsenic can be detected most readily and surely of all poisons, but even here exaggeration must be carefully avoided. The one-six hundred thousandth part had been distinguished in a known mixture, but not less than one milligram in half a pint of organic liquid was sufficient to afford sufficient evidence as would entitle one to swear away a human life. Röscoe and Schorlemmer had reproduced Fresenius and Von Babo's complicated and dangerous process, even to relating the fable that the Marsh test must not be applied in the presence of chlorides. As a matter of fact hydrochloric acid is in all respects superior to sulphuric acid for use in this test, even though Fresenius does deprecate its use because it "not unfrequently contains chloride of arsenic, owing to the presence of arsenic in the sulphuric acid employed" in its manufacture. The lecture was illustrated by a series of delicate and successful experiments. Messrs. Ehor, Worrall, Dodd, Morrison, Newsholme, and Grierson took part in a discussion which followed. The audience was exceptionally large, and a hearty vote of thanks was accorded Mr. Arnold for his interesting lecture. After the receipt of some donations had been intimated, Mr. Percy Carr was elected a member of the society.

## SCOTLAND.

### EDINBURGH.

**THE CHAIR OF BOTANY.**—For the vacant professorship in the University it is stated that a short list has been drawn up consisting of the names of Professor Bayley Balfour, Oxford; Professor McNab, of Dublin; and Mr. George M'ray, of the Botanical Department, British Museum—all Scotchmen.

**BOTANICAL SOCIETY.**—A meeting of this society was held on February 9, Dr. William Craig in the chair. The death of Professor Dickson, who had been twice president of the society, was referred to in fitting terms, and the president mentioned that since the last meeting the society had lost no fewer than five of its fellows. Three were honorary fellows—Dr. Boswell, Bermuda; Professor Du Bary, Strasburg; and Professor Asa Gray, America; and two were resident fellows—the Rev. Mr. Colvin, late of Teviothead, and Professor Dickson. Amongst the papers read was one by Mr. Patrick Geddes, F.R.S.E., on "The Origin of Evergreens," in which he pointed out that evergreens tend to arise in all orders among the forms of most vegetative habit. In such forms flowering was usually diminished, relatively to the deciduous members of the same group, and floral evolution was checked. Thus, among allied orders the evergreens were usually less differentiated than their deciduous congeners. The extreme contrast to evergreens was afforded by the reproductive annuals or by forms of magnificent but evanescent bloom like the night-flowering cactus. The origin of the autumnal flowering and the highly developed perfume were explained by relation to moths, although no doubt

subsequently adapted thereto. These phenomena were primarily the outcome of a constitution in which the reproductive functions were more developed than the vegetative. Vegetation stopped entirely at night, and reproduction was thus entirely unopposed. In the same way the perfume expressed intense destructive change associated with the reproductive process.

ELGIN.

**CHEMISTS' ASSISTANTS AND APPRENTICES' ASSOCIATION.**—A meeting of the Association was held on February 10, Mr. A. G. Wilson in the chair. Papers on "Pharmacy, Past, Present and Future," were read by Messrs. T. R. A. Thompson and H. Buchanan. A communication from Mr. J. R. McKenzie, Edinburgh, giving his experience of the Minor examination was read by the secretary, and was much appreciated. A cordial vote of thanks was accorded to Mr. McKenzie. The papers on pharmacy were, we understand, the outcome of an offer of two money prizes by the executive of the Association, one of the conditions being that the first prize paper should be sent to *THE CHEMIST AND DRUGGIST* for publication. The executive are well pleased with the result, so far as the quality of the papers submitted are concerned, and have sent us the paper written by Mr. T. R. A. Thompson, who carried off the first prize, although he has been only eighteen months at the business. This is a very intelligently put together composition, in which Mr. Thompson reviews pharmacy as it was in the days of Galen and other old-time fathers of pharmacy. Coming to the present time, he spoke of the more noteworthy leaders of pharmacy, then of the Pharmacopœia and its usefulness, throwing out suggestions for its improvement and enlargement. Several recent additions to pharmacy were also described in an intelligent manner, and the executive did well in awarding a prize to the essay.

## Legal Reports.

### THE MANUFACTURE OF CHLOROFORM IN AMERICA.

A CASE affecting the right to manufacture chloroform by the acetone process, which has been debated in the United States courts of justice for nearly two years, was finally disposed of last month, judgment being given in favour of complainants, Messrs. Charles Pfizer & Co., and the Albany Chemical Company, who sued Messrs. Roessler & Hasslacher, the well-known Philadelphia chemical manufacturers, for infringement of their patent rights. The patent worked by the complaining firms for the production of chloroform covers "the production of chloroform from the liquid products resulting from the decomposition of crude acetates at higher temperatures, by subjecting said liquid products to the action of a hypochlorite and removing the chloroform therefrom by distillation substantially as described." In announcing his decision the judge observed that there was no room to doubt that one of the complainants, Gustavus Michaelis, was first to discover that chloroform could be advantageously obtained from the liquid products resulting from the decomposition of crude acetates of lime by the method of distillation described in the patent; and it was clear that the production of chloroform was greatly cheapened by this discovery. Subsequent experiments showed that the patentee was mistaken respecting the quantity of alcohol obtainable from acetones, that he was probably mistaken respecting the quantity obtainable from the higher boiling properties of ingredients of crude acetates, and that other statements contained in his specifications were inaccurate. Those mistakes did not, however, it was held, affect the validity of the patent. As to the question whether the defendants infringed the patent, it was admitted that they used the grey acetate while the complainants used the brown. The patent designated crude acetates, without reference to colour or degree of crudeness, and stated the brown to be preferable. This designation clearly included grey, which, as respects crudeness, is distinguishable from the brown only in a slight degree. Both are crude in the sense contemplated by the term as employed in the patent. That the method of distillation used by the defendants was substantially the same as that described and used by the complainants seemed clear. A decree was therefore entered against the defendants for an injunction and account.



## FAILURES AND BANKRUPTCY REPORTS

**R. HENRY ACKERMAN**, 39 Redcliff Hill and Harrowgate Villa, Southville, Bristol, Wholesale Druggist, Chemist, and Dentist.

THIS bankrupt was publicly examined on Friday, Feb. 10. In reply to questions by Mr. A. H. Hooper, chief clerk of the Official Receiver, the debtor said he commenced business in September, 1884, in partnership with Mr. Newcombe. His capital was 100*l*. The partnership was dissolved in December, 1886, and he took over the whole of the liabilities and the assets of the partnership. The examination was adjourned.

**E. MARIE BOURJEAUD**, 22 Davies Street, Berkeley Square, Surgical Appliance Manufacturer.

IN this case the receiving order was made on January 14, and accounts had been filed showing liabilities of 1,160*l*. 10*s*. 7*d*. and assets 424*l*. 9*s*. 8*d*. The Official Receiver reports that according to the debtor's statement he succeeded to his business in 1872 (with a capital of about 300*l*), on the decease of his father. He attributes his failure and deficiency to his expenses having been in excess of his profits, in consequence of domestic affliction, to heavy interest on borrowed moneys, legal expenses, and to his inability to realise his interest in property inherited from his father and mother. The debtor, on his consent, has been adjudged bankrupt.

**S. W. BRADBURY**, formerly of Birkenhead and Llandoverly, South Wales, Sheep-dip Manufacturer.

ON Thursday Mr. H. Reed applied in the London Bankruptcy Court for a certificate that the bankruptcy of Mr. Bradbury was brought about by misfortune, and not by any misconduct on his part. Mr. Lumley Smith, Q.C., Mr. Chamberlayn (trustee), and the Official Solicitor all appeared in the case. The failure took place in June last, and the liabilities were 533*l*. 2*s*. 8*d*., and no assets, the failure being attributed to the costs of an unsuccessful libel action, and liability under proceedings in connection with the winding-up of the limited company to which the sheep-dip business was sold. On the case being called on,

Mr. Reed stated that when the application was made for the order of discharge the Court held that there was but a very slight offence made out, *i.e.*, not keeping proper books, and that the omission was mainly in connection with the business at the Swan Inn, Walton, and one particular item of 90*l*., and he had a letter from that creditor stating that the claim was a mistake.

The trustee admitted the correctness of this statement.

Mr. Reed went on to state that the real cause of the bankruptcy was a libel action brought by the bankrupt, respecting which bankrupt was led to believe that the defendant would not press him for costs if a new trial were not pressed for.

His Honour: If a man brings an action without having money in his pocket to pay the costs he is not entitled to a certificate of misfortune.

Mr. Reed said there was an appeal pending on which this point was raised, and perhaps his Honour would prefer to wait until that had been decided.

The Registrar: I think it would be better.

Mr. Chamberlayn: I should wish to raise other objections to this appeal.

The Registrar: Certainly.

The Official Solicitor: I also reserve to myself that right.

His Honour: Yes. I may tell you, Mr. Reed, that my opinion is that by giving a man a certificate under these circumstances you take away from him a motive to pay the creditors in full, and thus get an annulment of the bankruptcy.

The application was then adjourned, pending the appeal in question, which is that of Lord Colin Campbell against Registrar Giffard's decision refusing him a similar certificate.

**Re JOSEPH CROOKE**, of Dundee, formerly of Eckington, Chemist and Druggist.

AT the London Bankruptcy Court, on Wednesday, an application was made to Mr. Registrar Giffard for a receiving order against the estate of Joseph Crooke, of Castle Street, Dundee, late of Eckington, Derbyshire, chemist and druggist. The petitioning creditors are Messrs. Wyleys & Co., of Coventry, manufacturing chemists, and J. T. Dobb & Son, of Sheffield, the act of bankruptcy alleged being an assignment of his property by the bankrupt to a trustee, for the benefit of his creditors, on October 29, 1887. Mr. Scarlett appeared for the petitioning creditors, and stated that the application was compelled to be made in the London Court consequent upon the debtor being resident out of England, namely, at Dundee. The debtor had not attended, and nothing had transpired as to the amount of the debts and assets. It is expected that the case will be transferred to the County Court.

**Re ROBERT SIMPSON** (deceased), 9 Hyde Park Corner, Leeds, Chemist and Druggist.

MESSRS. GOODALL, BACKHOUSE & Co., who are arranging the affairs of this estate as a matter of kindness to the family, have issued the following circular:—

White Horse Street, Leeds,

February 1, 1888.

**Re ROBERT SIMPSON**, deceased.

DEAR SIR,—At the request of Mrs. Simpson, we are disposing of this business, and upon looking into the deceased's affairs we find the estate only shows assets equal, when fully realised, to 12*s*. 6*d*. in the pound.

We are, however, enabled through the kindness of some of Mrs. Simpson's friends to make an offer of 10*s*. in the pound payable immediately, and shall be glad to receive your assent to this arrangement.

We may mention that Mrs. Simpson is left with a family of two girls and a boy, the latter blind, and she being penniless will have to depend entirely on her own exertions for a livelihood.

Awaiting the favour of your reply,

Yours faithfully,

(Signed) GOODALL, BACKHOUSE & Co.

The following are the principal creditors:—

	£	s.	d.
Richard Simpson, Market Weighton ..	112	0	0
Dr. Horsfall, Leeds ..	15	6	0
Rent ..	32	10	0
Rates ..	21	10	0
Batley & Watts, London ..	21	5	8
Schweppes, Liverpool ..	11	1	0
Ellis, W., Leeds ..	11	10	6
Sherdy, Mrs., Leeds ..	80	0	0
Clough, W. H. M., Leeds ..	13	0	0
Hall, R., Liverpool ..	36	5	0
Stead, Liverpool ..	10	0	0
Funeral expenses ..	13	9	0
Creditors under 10 <i>l</i> . ..	102	8	11
Total Liabilities ..	485	6	1
Total assets, "all stock in trade" ..	340	0	0
Amount of deficiency ..	145	6	1

The majority of the creditors have agreed to accept 10*s*. in the pound already.

**HENRY PELHAM DEACON**, Waldeck House, Willesden Lane, Surgeon.

A MEETING was held on Wednesday before Mr. Registrar Giffard for the public examination of this debtor, who failed with liabilities 4,716*l*. 2*s*. 9*d*., and assets 130*l*. 1*s*. 10*d*. The debtor, in examination, said he was formerly in partnership with Mr. Dickson, and they practised as surgeons. At the commencement of the partnership he owed a number of debts. He received 700*l*. from Mr. Dickson. They subsequently dissolved partnership, and he was now indebted to Mr. Dickson. The chief cause of his failure was loss of



business, owing to a long illness. He was insolvent at the time of dissolution of partnership. He had borrowed various moneys, which he expected to pay out of his practice. He did not pay so much as 80 per cent.—By Mr. Tilley, on behalf of creditors: He had destroyed certain of his books. He had moved into a smaller house, and as the books were fished with he destroyed them. After some further questions, it appeared that the accounts were not quite complete, and the matter was ordered to stand over to February 29, in order that the debtor might amend them.

E. WOODMAN, 7 Marquess Road, Canonbury, Dentist.

THIS debtor, against whose estate a receiving order was made on January 19, has filed accounts showing liabilities of £2, 10s. 6d., and assets 20l. 13s. He has been adjudged bankrupt, and an order made for the summary administration of the estate.

## Gazette.

### PARTNERSHIPS DISSOLVED.

HERBERTON & Co., Wigan, drysalterers.

FWLER & BESWICK, Bishopsgate Street Without, surgeons.

ELME & BROWNSWORD, Manchester, oil importers and refiners.

### THE BANKRUPTCY ACT, 1883.

#### FIRST MEETINGS AND PUBLIC EXAMINATIONS.

FURJEAUD, ERNEST MARIE, Davies Street, Berkeley Square, surgical appliance manufacturer. Feb. 21, Bankruptcy Buildings, Portugal Street, Lincoln's Inn Fields; March 7, 34 Lincoln's Inn Fields.

UGHTY, WILLIAM HALL (trading as the Yorkshire Paint and Colour Company), Kingston-upon-Hull, colour manufacturer. Feb. 21, Official Receiver's offices, Hull; March 5, Court House, Hull.

PKOVER, JOHNSON, & CARRUTHERS, DAVID (trading as Pickover & Co.), Burnley, drysalterers. Feb. 20, Exchange Hotel, Burnley; Feb. 23, Court House, Burnley.

#### ADJUDICATIONS.

ABOTT, WILLIAM HODGSON, Annesley Woodhouse, Newstead, Kirkby and Kirkby Folly, Nottinghamshire, surgeon.

FWORTHY, ALFRED, King's Road, Peckham, late of Holloway Road and Tavistock Terrace, Upper Holloway, mineral-water manufacturer.

#### NOTICE OF DIVIDEND.

FRZIBBON, GERALD (trading as Gibbon & Co.), late of Eastcheap, London, and Liversedge, Yorkshire, and Headingley, near Leeds, dyewood and drysaltery broker. First div. of 2s., Feb. 23, 71 Eastcheap, E.C.

#### ORDERS MADE ON APPLICATIONS FOR DISCHARGE.

ELSEY, WILLIAM, Chalford Hill, Bisley, Gloucestershire, L.R.C.P., and L.R.C.S. Discharge suspended for eighteen months.

WRENCE, CHARLES, Lincoln Street, Mile End; Gunn Lane, Limehouse; Brook Street, Ratcliffe; and High Street, Bow, veterinary surgeon. Discharge suspended for three months.

WALLIS, ARTHUR GRAY, Birmingham (trading as the Birmingham Sanitary Association). Discharge to be granted as soon as dividend of 6s. in the pound is paid.

#### SCOTTISH BANKRUPTS.

Low & Co., oil refiners and merchants, 77 Queen Street, Glasgow, and Avondale Works, near Manuel Station. Creditors will receive a dividend March 26, in the chambers of James Hutton, 179 West George Street, Glasgow.

## Pharmaceutical Society of Great Britain.

### NORTH BRITISH BRANCH.

AN evening meeting of the branch was held in the Society's house, York Place, Edinburgh, on Wednesday, at half-past eight o'clock. Mr. Bellye Baildon, chairman of the executive, presided, and, after the minutes had been read, he referred in fitting terms to

#### THE DEATH OF MR. RICHARD RAIMES, SENR.,

an ex-president of the branch, who, while he had a hand in the administration of the Society's affairs in Scotland, was most assiduous in attention to the duties of his office, and since his retirement from business had shown his interest in the branch in various ways.

The first paper read was on

#### HYGRINE.

By Ralph Stockman, M.D., F.R.S.E.

The author, in a previous paper (*C. & D.* XXX., 467), has shown that some samples of commercial cocaine hydrochlorate contain an amorphous body which he separated, and, on subjecting it to distillation, found that it consisted of crystallised cocaine and a volatile alkaloid which he recognised as hygrine. The conclusions then arrived at were disputed, especially as regards the existence of hygrine; but since then they have been fully corroborated by Dr. William Howard and Dr. Otto Hesse, the latter of whom has described the characters of hygrine, confirming Lossen's description and giving it as his opinion that hygrine is a homologue of chinoline. It has been stated that hygrine is a decomposition product of the alkaloids of coca leaf, formed during the extraction thereof. The author has endeavoured to prove the correctness of this theory, but has been unable to extract the body from dried leaves, the reason probably being that it is lost in the drying. He has, however, recently examined an alcoholic extract of the fresh leaves, and has obtained from it hygrine in relatively large amounts. These experiments were based on some observations made by Dr. Rusby, chemist to Parke, Davis & Co., of Detroit, who noticed that the alcoholic extract of the fresh coca leaves gave a greater precipitate with Meyer's reagent than was accounted for by the yield of cocaine subsequently obtained. In consequence of this Dr. Rusby sent a sample of the extract to the author for examination. Dr. Stockman, on subjecting some of this extract to watery distillation, obtained from it hygrine as a brown oily liquid possessing very irritating properties. In experiments on frogs, local irritation was caused wherever particles of the alkaloid were carried by the circulation. Other facts were adduced to show that the volatile body obtained was true hygrine. It thus appears that the extract and alkaloid obtained from the fresh leaves are more liable to contain the body than those made from dried leaves. In concluding, the author again called attention to the importance of excluding hygrine from therapeutic salts of cocaine.

The next paper read was on

#### MORPHINE HYDRATE.

By D. B. DOTT, F.R.S.E.

It is generally stated that morphine hydrate crystallises with one molecule of water of crystallisation, which it does not lose below 100° C. Who is responsible for this statement the author had been unable to ascertain—it is probably due to some early chemist—but, however that may be, the statement is universally accepted and has been corroborated by Matthiessen and Wright, who with other authorities consulted say that the molecule of water is only driven off above 100° C. The author was surprised to find on submitting the matter to test that these statements are wrong, and he had conclusively proved that at 90° C. morphine hydrate loses its combined water. In the course of the observations there were indications that the hydrate is hygroscopic, and subsequent experiments warrant this conclusion; also that the formula of the hydrate should be  $C_{17}H_{19}NO_3 \cdot (H_2O) 1\frac{1}{2}$ ; or, more correctly,  $8C_{17}H_{19}NO_3 \cdot 9H_2O$ .

The same author followed with a note on German methylated spirit—



*Denaturized Spiritus.*

He has previously, in a note read before the Scottish section of the Society of Chemical Industry (C. & D. XXXI., 735), called attention to the great hardship which British manufacturers suffer through the Excise authorities allowing only the most crude specimens of wood naphtha to be used for methylating purposes. That observation was emphasised in the present paper, and the author advocated the authorisation in manufactures of a spirit somewhat similar to that in use in Germany. The addition of 5 per cent. of wood spirit (not the worst of its kind) and a half per cent. of pyridine bases would render the spirit practically undrinkable, but it would be much better suited for manufacturing purposes than the present methylated spirit, containing 10 per cent. of bad naphtha. It would, in short, be a nearly ideal methylated spirit. In reply to a question put by Mr. Hill the author said he did not think that pyridine bases would render the spirit objectionable for burning.

## SPECIMENS.

The Secretary, Mr. J. Rutherford Hill, showed two specimens of *Astragalus* and read a note thereon. One of these was from Texas and the other from Cyprus; the latter was reported to have caused poisonous effects on horses. It had been sent to him to be examined chemically, in order to ascertain what the toxic principle might be. Dr. Stockman reported the results of experiments with a strong preparation of the dry plant on animals, which went to show that it has no physiological effects, and he was of the opinion that the symptoms produced in horses were due to the astragalus being eaten in excess, with results as in the case of clover. Mr. Hill also showed a beautiful specimen of *Madrepora* from Mauritius, which had been presented to the museum by Mr. A. J. Young, South Queensferry.

## FRENCH PHARMACEUTICAL NEWS.

(From our Paris Correspondent.)

**THE GRAND AMPHITHEATRE** of the Faculty of Medicine, last week damaged by fire, has been repaired, some twenty men—as many as could conveniently be managed together—having been at once set to work. The lectures are to begin again there on Thursday, the 16th. Many regret that the fire should have spared the two dilapidated blackboards of antediluvian appearance standing near the lecturer's table.

**SWISS RECIPROCITY.**—French medical papers report that an official offer was made to the Swiss authorities to the effect that British physicians be allowed to practise in Switzerland, Swiss physicians being reciprocally permitted to practise in Great Britain. The Swiss Medical Committee, it appears, have unanimously declined the offer, holding it disadvantageous to their country, as in their estimation Swiss medical education is superior to the British.

**SCARCITY OF ARMY SURGEONS.**—A competition was to be held for situations in the Val de Grâce School of Military Medicine and Pharmacy, offered to medical graduates wishing to join the service. But notwithstanding the attractions of an officer's uniform and gold lace, not a single candidate came up in answer to the offer. The failure shows the necessity of re-establishing a military faculty like the one formerly existing at Strasbourg, for the recruiting of army pharmacists is also found most difficult.

**ENCOURAGING SCIENCES.**—The French Society for the Advancement of Science have made this year grants amounting to 18,050*f.* as encouragements to various investigators. The following, relating to chemistry, pharmacy, and collateral sciences, may be noted:—To M. Crova, for experiments on actinometry, 3,000*f.*; M. Crié, European land florae, 300*f.*; M. Fouqué, propagation of soil vibrations, 1,000*f.*; M. Devaux, gaseous exchanges in aquatic plants, 300*f.*; MM. Bonnet and Maury, botany of Southern Oran, 1,600*f.*; M. Beauregard, habits of vesicating insects, 250*f.*

**FORMATION OF NATURAL NATRON.**—At the time of Bonaparte's Egyptian expedition, Berthollet had given as his opinion that the natural soda carbonate, or natron, impreg-

nating the soil there was due to the decomposition of sea-salt by carbonate of lime. Following up this theory, M. de Mondésir, in a paper presented last Monday by M. Schloëssing to the Academy of Sciences, thought that in the presence of vegetable earth sea-salt partly gives up its chlorine, and forms chloride and bicarbonate of calcium. On the occurrence of rain a second decomposition takes place between the bicarbonate of calcium and the sodium compound, whereby carbonate of sodium is formed. M. de Mondésir verified the fact experimentally, and presented to the Academy 1 kilo. of natron thus obtained.

**DEATH OF A MANUFACTURING CHEMIST.**—M. Emile Roussseau died on February 4, at the age of 73, after a long and successful career as a practical and manufacturing chemist. Deceased was born at Clamecy (Nièvre), and was first preparator for Orfila and Dumas successively. Having established himself in business, it was at his factory and with his help that Sainte-Claire Deville and Debray first made aluminium on the industrial scale. He also contributed to the introduction of the use of pyrites for sulphuric acid and the utilisation of coal waste. He was the inventor of the process, bearing his name, for the refining of sugar with lime and carbonic acid. M. Roussseau was highly esteemed for his merit as a chemist and his integrity and extreme affability.

**THE EVANS FAMILY AT LAW.**—John Evans, an American, came in 1855 to Paris to work under his uncle, Thomas William Evans, a well-known dentist. In 1869 he left his uncle and went into business on his own account. T. W. Evans, finding his nephew attracted a good part of the custom, and interfered with the sale of his tooth-wash and tooth-powder, tried in 1879 to enjoin him from using the name of Evans, because the Philadelphia Court of Common Pleas (*Galliee*, Cour des plaids communs) had in 1875 authorised John to change his name for that of D'Oyley. In answer, John replied that the Court's decision was only permissive, and hence his full name should be and is John Evans D'Oyley. After varying fortune before the French tribunals, the Paris Court of Appeal has finally settled the case, holding that John has a right to his family name Evans, he being a legitimate son; that the Christian names are sufficient to distinguish the uncle from the nephew; that the judgment of the Philadelphia Court is valid in France, and therefore John is entitled to add D'Oyley to his name; that he has a right to the name of Evans also, and to reside in France, do business there, and make such uses of his name as he thinks proper. Therefore the Court voids all sentences against John Evans D'Oyley, disallows Thomas Evans's claims, orders fines to be refunded to John, and sentences Thomas to pay all costs.

**BUTTER PRESERVATIVE LITIGATION.**—A long-contested suit has finally been decided by the Paris "Cour de Cassation." The litigants were M. Duhamel, a butter dealer at Argentan, and M. Peschard, a pharmacist of the place; therefore both Normans, and consequently, if the French proverb be true, both litigiously inclined. The facts appear to be as follows. On June 18, 1885, Duhamel, who afterwards transferred his rights to one Delaunay-Foucault, obtained letters patent for a butter powder intended to preserve the sweetness of the dairy product. On October 2 of the same year Peschard patented the same powder, claiming to be the inventor. Although the Court of Caen, on July 20, 1886, denied his claim, Peschard went on advertising and manufacturing the powder. Next the Correctional Court sentenced Peschard to fine and damages. But he appealed, claiming he had made the experiments with Duhamel when a specimen of the preservative powder was, on April 8, 1884, sent to Campbell & Co., of London. Duhamel answered that Peschard had only been in his employ as a chemist during the experiments, and could therefore acquire of the composition no legal knowledge sufficient to invalidate the patent. After the case had been fought in four or five different courts with Norman pertinacity, the highest of all, the Cour de Cassation, has at last decided in favour of the first patent, holding Peschard to have been employed by Duhamel, and hence under obligation to keep the secret; also laying down the rule of jurisprudence that "the employé of the patentee, who as such had a share in the experiments under the condition that he should keep them secret, cannot take advantage of such knowledge acquired of the invention as if it were personal, legitimate, and *bona-fide* property."



## Trade Notes.

MESSRS. THOMPSON, MILLARD & CO. (LIMITED), of Curta Road, send us their illustrated price-list for 1888, which is divided into four sections, namely, druggists' sundries, surgical instruments, shop-fittings, proprietary articles.

MESSRS. BARNETT & FOSTER publish a long list of second-hand soda-water machinery and appliances opposite our Exchange column page, which would seem to be well worth the attention of aerated-water makers. As far as one can judge from letterpress there seem to be some good bargains offered.

R. L. HARBORD, trading as Wm. Pen & Co., whose successful application for the removal of Messrs. Perry Davis & Co. trade-mark for pain-killer we reported on January 28, informs us that the case is to be taken to a higher court. Mr Harbord would like to correspond with "Veritas," who wrote in this journal a few months since.

THE REPORT OF THE DIRECTORS OF THE ANGLO-FOREIGN BANKING COMPANY (LIMITED) to the 31st of December states that the gross profit, after allowing for bad and doubtful debts, and including 5,936% brought forward, amounted to 67,042 $\frac{1}{2}$ . Deducting the current charges and rebate, and providing for the bank premises redemption fund and income-tax, there remains a net profit of 47,233 $\frac{1}{2}$ . The directors propose a dividend of 3s. 6d. per share and a bonus of s. 6d. per share, making the total distribution for the year 10s. 6d. per share, or 7 $\frac{1}{2}$  per cent per annum tax free, leaving 10,000 $\frac{1}{2}$  to the reserve fund, which will then stand at 100,000 $\frac{1}{2}$ , and 5,733 $\frac{1}{2}$  forward.

WE have received from Messrs. Burroughs, Wellcome & Co. an excellent photograph of their American Exhibition show-case, Woodbury type copies of which they are willing to give to those who may apply for them. The subject of the photograph has exceptional interest, the show-case itself being made from the beautifully carved-wood screens which the firm bought from the Indian Government. This occupies the centre of the picture, to the left of which is the silver fountain from which the fascinating perfumes of Lundborg flowed during the whole time the Exhibition was open. The most interesting part of the picture comprises two groups of North American Indians with their squaws, who occupy picturesque positions in the foreground, and add to the attractiveness of the picture as a counter show-card.

SEVERAL OF THE FRENCH ESSENTIAL OIL DISTILLERS are now in London booking orders for their pomades. M. Etienne Bermond, of the firm of Auguste Bermond, Nice, left again for France on Thursday. The French dealers generally express themselves fairly well satisfied with the condition of business here. The crops in France are late, having been retarded by the wintry weather prevailing. Violets are now being gathered, orange-flowers and roses will follow in May and June, jasmine, tuberose, and mignonette follow between July and October, and in the latter month the rose crop brings up the rear.

## MARRIAGES.

*Notices of Marriages and Deaths are inserted free if sent with proper authentication.]*

MALGLEISH—WEST.—On February 9, at Holy Trinity, Church, Exeter, by the Rev. J. Hockmeyer, Henry J., of Malgleish, of Exeter, to Edith Jane West, only daughter of F. J. West, Esq., late of Islington, London.

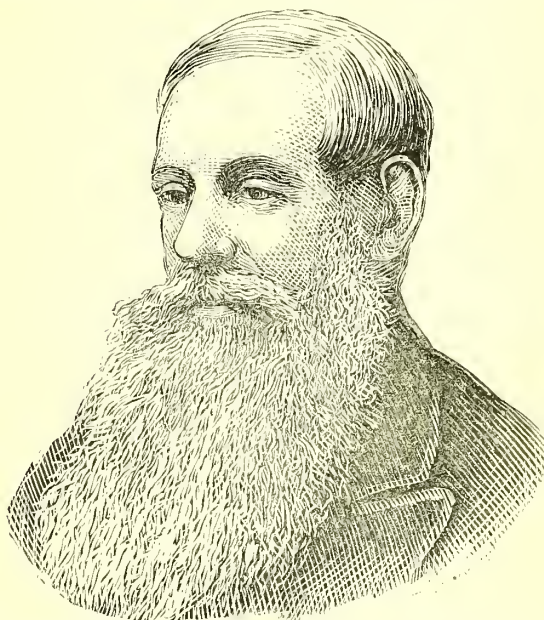
M'INROY—SIMPSON.—At 5 Saunders Street, Edinburgh, on February 8, by the Rev. J. Kerr Craig, M.A., James M'Inroy, chemist and druggist, Tynemouth, to Sarah White, only daughter of Thomas Simpson.

## DEATHS.

BLEASDALE.—On January 25, Mr. William Bleasdale, of the firm of Clarke, Bleasdale & Co., wholesale druggists, York.

RAIMES.—On February 9, at Bonnington Park, Edinburgh, Richard Raimes, pharmaceutical chemist, in his 91st year. The late Mr. Raimes was born at Wheldrake, Yorkshire, on October 11, 1797, his father farming land there which had

been in the possession of the family for over 300 years. Throughout his long and active life he always retained a very warm feeling for everything connected with the city and county of York, as evidence of which it may be mentioned that only a few months since he offered through the *York-*



*shire Gazette* a contribution of 50 $\frac{1}{2}$  towards the cost of providing York with a covered market. He was apprenticed to Messrs. Bowling, Walker & Co., of London, and as soon as he had served his time joined his brother, John Raimes, and worked a commission business from York. As traveller for the firm Richard Raimes at that time travelled the length and breadth of the British Isles, riding with saddle bags and top boots from London to John o' Groat's by the east coast and returning by the west coast, transacting business all the journey. Thus he became very well known to the older generation of chemists and druggists in England and Scotland, and retained many friendships all over the country. In 1818 he and his brother opened an office in Parliament Square, Edinburgh, then removed to Greenside, where they added the wholesale drug business. As business increased the firm took larger and larger premises successively at Union Place, Fyfe Place, and Smith's Place, all in Leith Walk. At the last spot they built, some fifty years ago, the premises still occupied by Raimes & Co. At about the same time they started a branch in Dublin for the transaction of Irish business, which was afterwards transferred to Liverpool, where they bought premises in Hanover Street, which premises are still retained by the firm, though owing to changes in it, this branch was given up in 1881, and the business concentrated in Edinburgh and York, the latter branch having been undertaken about the same time as the Liverpool one. Mr. Raimes retired from business in 1871. He became a member of the Council of the North British Branch of the Pharmaceutical Society in 1857, and was president during the session 1859-60. He was only ill for one day before his death, having taken chill on returning from a visit to Elie. He was one of the most liberal, kind, and courteous of men, and his loss will be widely regretted. After his retirement from business he continued to take a warm interest in politics and public affairs in general. He was connected with the St. James's Episcopal Church, and took an active interest in the building of a new church at Goldenacre. In politics he was an ardent Conservative, and exerted himself in many ways to promote the cause. In early life especially he was a keen sportsman, and took a special interest in coursing. He leaves four daughters and one son (Mr. Richard Raimes), an elder son having died about a year ago.

STONEMAN.—On January 31, 1888, Mr. Richard Stoneman, chemist and druggist, 63 Polden Street, Bridgwater. Aged 66 years.



## SHEFFIELD PHARMACEUTICAL AND CHEMICAL SOCIETY.

A MEETING of this Society was held on Wednesday night in the rooms at Fitzalan Square for the purpose of considering the Bill for amending the Pharmacy Acts which was agreed to by the Pharmaceutical Council three weeks ago. There was a large attendance of members, the meeting altogether being one of the liveliest which has ever been held in Sheffield, beating in this respect the annual meeting held a few months ago, which Mr. Carteighe's presence illuminated. The President of the Society, Mr. Maxey, occupied the chair.

After the minutes had been approved of, a letter was read from Mr. Ward, local secretary to the Pharmaceutical Society, apologising for his absence and signifying his hearty approval of the Bill. Mr. G. A. Grierson then read the draft Bill, and in inviting discussion thereon.

The PRESIDENT gave it his support. He thought the Bill was fair alike to employers and employed, but he could not approve of pupils in dispensaries and hospitals being placed on the same footing as apprentices in the open shops of chemists and druggists. The meeting would in the first place decide how the Bill should be considered.

Moved by Mr. NEWSHOLME, seconded by Mr. MORRISON, that it be taken *en bloc*.

Moved by Mr. PRESTON, with Mr. APPLETON as seconder, that the clauses of the Bill be taken *seriatim*, and on the motions being put to the vote the latter was carried.

## THE PREAMBLE

was quickly disposed of. Mr. PRESTON, who moved that it be supported, said that the Bill showed here and there a little looseness of language; here, for instance, in the preamble, it was said to be "expedient to further secure that certain persons known as 'chemists and druggists' should possess a competent practical knowledge of their business." What, he asked, were those who now went up for examination? He did not suppose the sentence was intended to throw a slur on them, but it came very near to it.

Mr. ELLINOR seconded the motion, and it was agreed to.

## FIRST CLAUSE.

The intention of this clause is to regulate the conditions precedent to examination for registration as "chemist and druggist" or "pharmaceutical chemist," whereby such candidates shall have to produce evidence that they have served three years as apprentice to a chemist and druggist (or his equivalent in other countries), and attended certain courses of instruction which the Pharmaceutical Council is to have the power to formulate.

Mr. NEWSHOLME moved that this clause be supported.

Mr. MORRISON seconded the motion. He said that an enforced curriculum would be a great advantage to assistants and apprentices. It would prevent cram; and they would find, as they had done in the Sheffield school, that steady, easy work aroused greater interest than the precipitate grinding which students now go in for. Moreover, students would find a considerable saving so far as expense was concerned, and he hoped they would support it.

Mr. FURNESS felt it to be his duty to point out the looseness of phraseology in the Bill, which as an Act might become a formidable weapon. He referred more particularly to the expressions "periods of time" and "courses of instruction," which might be misconstrued.

Mr. PRESTON objected to the insertion of the words "in public hospitals or dispensaries," holding that it would be an injustice to pharmacists and their apprentices that hospital-trained pupils should have equal rights with them. He therefore moved that these words should be deleted, and, with this exception, supported the clause.

Mr. MAXEY seconded.

Mr. ELLINOR supported the first resolution. Any curriculum, to be successful, must, he held, be an enforced one. It should not be possible for a man to cram for a month, and then pass an examination; and there was no reason why pharmacy should not be placed on a level with the dental and medical professions, so far as education was concerned.

Mr. GRIERSON thought that the clause which Mr. Preston

took an exception to removed an anomaly which should not exist.

This was also Mr. NEWSHOLME'S opinion, and he quoted instances of qualified dispensers who were shining lights in the pharmaceutical ranks. It would be absurd not to allow these men to train apprentices.

Mr. FURNESS, however, questioned whether hospital training qualified equally with training in an open shop. He thought pharmacy was not practised in hospitals under the same conditions as in an open shop, and pointed out that the clause was the result of a compromise.

Mr. ELLINOR: Does Mr. Farness deny the right of duly qualified (legally) dispensers to take apprentices?

Mr. FURNESS practically denied their right.

The amendment was then put and carried.

## SECOND CLAUSE.

This clause was next taken up. It merely relates to the formation of by-laws by the Pharmaceutical Society on the lines of the preceding clause.

Mr. PRESTON asked the representative of the Pharmaceutical Council present whether the curriculum was to be considered one of the by-laws which were not to come into operation until 1893.

Mr. NEWSHOLME said there was no mention of a curriculum in the Bill. The by-laws had yet to be made.

Mr. HUMPHREY said that after 1893 the society would only have its powers to specify certificates to be taken dating from 1893.

Mr. ELLINOR moved that this clause be supported, and Mr. GRIERSON seconded.

Mr. PRESTON thought the clause was too ambiguous either to support or oppose. They did not know how the Pharmaceutical Society might use the powers given them. He did not say they were a set of cut-throats. But they had already had evidence of how such examination powers could be used. It was unjust to youths just finishing their apprenticeship before the Act came into force. Could Mr. Newsholme say whether it was intended to make the curriculum come into force on January 1 next year?

Some explanation as to the meaning of the clause were then given by Messrs. Humphrey, Morrison, and Newsholme, their purport being to show that a *by-law* was not necessarily a *curriculum*.

Mr. PRESTON then moved as an amendment that in conjunction with this clause there be an addendum saying that it does not apply to *present* apprentices, or students who have served three years.

Mr. COLE seconded.

Mr. APPLETON thought the clause was gloriously indefinite, and hoped the Bill would be wrecked.

Mr. FURNESS again complained of looseness of phraseology. The Bill was full of ambiguous meanings and pitfalls. The Pharmaceutical Society, judged by their past actions, were not to be trusted with more power. They were always changing their examinations. The details of the Bill should be definite, and power should be vested in the Privy Council and their ideas submitted to the Pharmaceutical Society.

Mr. NEWSHOLME supported the resolution. It was absurd, he said, to have the Privy Council's doings confirmed by the Pharmaceutical Society—a less body. There could be no mistake about the meaning of the expression "by-law." Mr. Newsholme then proceeded to dispose effectively of some of the loose statements which had been made. Those about the Pharmaceutical Society were simply censures on the speakers themselves, as they elected the Council of which they complained so bitterly.

Mr. ELLINOR replied, as mover. The Pharmaceutical Society could only move as Parliament would allow them, and this naturally tied them somewhat.

Mr. PRESTON replied, as mover of the amendment, and thought Mr. Newsholme had no right to refer to gentlemen, as being ridiculous and absurd.

Mr. GRIERSON, rising to a point of order, remarked that Mr. Newsholme had said the statements, not the gentlemen were ridiculous and absurd.

Mr. PRESTON again professed ignorance of distinction between by-laws and curriculum.

Mr. NEWSHOLME then followed with further explanations, which only seemed necessary apparently to a small minority.



After much rambling discussion, Mr. PRESTON withdrew his amendment, but said he would not vote.

Mr. FURNESS now said he was prepared to defend his "ridiculous and absurd statements," and moved the adjournment of the meeting on this clause.

Mr. APPLETON seconded.

The amendment was then put and lost.

Mr. FURNESS then moved that the meeting be adjourned, but this motion also was defeated.

Mr. PRESTON moved that Clause 3, stating that the Bill shall not extend to Ireland, be supported.

Mr. FURNESS seconded.

Mr. HUMPHREY proposed that Clauses 3 and 4 be allowed to stand without discussion, and this was agreed to.

The PRESIDENT then moved, and Mr. ELLINOR seconded:—

That this Society heartily supports the Pharmacy Acts Amendment Bill now being promoted by the Pharmaceutical Society. That a copy of this resolution be sent to the Council of the Pharmaceutical Society.

To this Mr. FURNESS moved as an amendment:—

That in the opinion of this meeting no amendment of the Pharmacy Act will be satisfactory to chemists which does not include clauses dealing with co-operative trading and giving equal privileges to associates.

This was a point which he had brought forward at the last annual meeting of the Society, and he had had the promise of support from Mr. Newsholme, whom he now charged with vacillation in the matter. He proceeded to refer in forcible style to the Bill, upon which he heaped a considerable amount of invective.

Mr. PRESTON seconded, and called attention to the fact of seven members in business only being at the meeting. He then referred to the decay of the Pharmaceutical Society.

Mr. NEWSHOLME then replied to some of Mr. Furness's statements with regard to pledges made to support equal privileges of associates with members. He also stated that he had at a recent meeting of the Pharmaceutical Council spoken in support of this, but it was unreasonable to suppose that he was the only moving power in the Council.

Mr. HUMPHREY was quite of opinion with Mr. Furness as to the rights of associates, but thought it a pity that Mr. Furness should introduce personal matters and charges against Mr. Newsholme, which recent public discussions negated.

The amendment was then put and lost.

In the course of the meeting Mr. Furness charged one of the speakers with uttering lies, and as he refused to withdraw this statement, Mr. Newsholme intimated that at the next meeting he would be prepared with a motion dealing with the matter.

Occasionally in the course of the meeting there was considerable excitement, language being used which is quite unfit for reporting. This Society has had a reputation in the past for its lively gatherings, but on this occasion it beat the record. The meeting adjourned at midnight.

#### LIVERPOOL CHEMISTS' ASSOCIATION.

THE first general meeting of the thirty-ninth session of this Association was held on Thursday evening (February 16) at the Royal Institution, Mr. A. H. Samuel, F.C.S., President, in the chair.

After some formal business Dr. Symes exhibited "Bracher's Patent Automatic Still," and explained its working. He described it as a most efficient and handy machine for distilling water, &c. In January, 1887, the machine was described in THE CHEMIST AND DRUGGIST, but since then some improvements had been made in it, and it was one of the latest inventions that he knew of. Proctor's pharmaceutical still was constructed on a somewhat similar principle. Dr. Symes, however, admitted that he had not received a proper description with the machine which he had obtained to send broad. In the discussion which followed the automatic principle of the machine was challenged, and there was other strong adverse criticism offered. Dr. Symes was thanked for his interesting exhibit.

Mr. Harold Wyatt, jun., then read some notes on pastilles

and tablets. The object of the paper was to show that chemists could easily prepare lozenges and pastilles themselves instead of leaving the making of them to wholesale manufacturers. The means by which this was to be accomplished was in the case of tablets the use of cocoa butter and saccharin, the lozenges being made as an ordinary pill and the pill shaped in a special mould after cutting, strophanthus, antipyrin, and other nauseous drugs having their taste completely covered by the use of glycyrrizin and saccharin. Jujubes were made after the formula of the Throat Hospital Pharmacopœia, the base being made of gelatine and glycerine, and variously flavoured with fruit juices, tolu, and glycyrrizin. A series of new formulae showing the application of these was given. A hearty vote of thanks was passed to Mr. Wyatt for his interesting and practical paper.

#### Personalities.

Mr. W. ROBSON, of 161 Cleethorpe Road, Great Grimsby, has retired from business, and is succeeded by Mr. J. Peet-Riley, from Lincoln.

It is proposed to present Sir George Owens, M.D., and member of the Pharmaceutical Council of Ireland, with a testimonial in recognition of his public services, and to mark the respect and esteem with which he is regarded.

Mr. M. CARTEIGHE has a "Note on Dauphiné in 1837" in the last issue of the "Alpine Journal," published by Messrs. Longmans, in which he recommends some of the peaks in that district as a pleasant variety for Alpine climbers. The "Meije," he regards, from a certain point of view, as "the most strikingly beautiful, as well as marvellous, piece of rock-work that man ever set eyes on."

Mr. JOHN MILTON OXLEY EMINSON, pharmaceutical chemist, Great Grimsby, is under prosecution at Bow Street Police Court on a charge of perjury alleged to have been committed by him in an affidavit sworn in support of a petition in the High Court of Justice to wind up the Northern Transvaal Gold Mining Company. The affidavit, it is said, conveyed the idea that the company was a bogus concern. Mr. George Lewis, who is defending Mr. Eminson, subjected the secretary of the company to a severe cross-examination, eliciting many very damaging admissions. One was that the company with a nominal capital of 60,000*l.* had purchased a farm from a Boer for 200*l.* or 300*l.*, and that this was the whole of the company's property. The witness admitted, too, having made a declaration at the Mansion House which was inaccurate. The hearing of the case stands adjourned till Saturday.

#### NEW COMPANIES.

LIVERPOOL AND DISTRICT MINERAL-WATER MANUFACTURERS' ASSOCIATION.—This association was registered January 30, as a company limited by guarantee to 5*l.* each member (the word "limited" being omitted from the title by licence from the Board of Trade), for the protection of members engaged in the mineral-water trade of Liverpool and district. For the purposes of registration the association is declared to consist of not more than 200 members. Mr. Simon Jude, 43 Pembroke Place, Liverpool, is appointed secretary.

SWANSEA OIL AND GREASE COMPANY (LIMITED).—Capital, 15,000*l.*, in 10*l.* shares. Objects—To take over the business carried on by Messrs. Thomas Cory, David Thomas, and Phillip Kneath, trading as the Swansea Oil and Grease Company, and to manufacture oils, grease, and other lubricants.

THE AUBRIOT ENAMELS SYNDICATE (LIMITED).—Capital, 11,000*l.*, in 1*l.* shares. Object—To purchase or otherwise acquire the production of cloisonné designs in enamel colours, enamellers, &c.

THE UNITED KINGDOM TEA COMPANY (LIMITED).—Capital, 150,000*l.*, in 5*l.* shares. Objects—To purchase the business of tea dealers now carried on by Edward Tetley, John Edward Tetley, William Henry Tetley, John Layton and James Fish, at 21 Mincing Lane, E.C., and 9 and 11 Imperial Warehouses, Leman Street, E.C., who are the first directors.



## Foreign and Colonial.

A HUMAN HORN has recently been added to the museum of the St. Louis Hospital, in Paris. It is 21 centimetres (about 8 inches) in length, and in shape, appearance, and consistency exactly like a goat's horn. The horn had been taken from the top of the head of a woman at Hyères.

"ABSINTHE" CONSUMPTION IN FRANCE.—The well-known French absinthe works of Pernod were sold the other day to M. Veil-Picard for the sum of 5,500,000 francs, or 220,000*l.* These works alone are said to place on the market daily ten thousand bottles of absinthe.

VICTORY FOR THE AMERICAN PEPPERMINT-GROWERS.—The recent order allowing importers of Japanese peppermint oil in America to put up their oil in smaller bottles and reship it to Europe without payment of duty has been rescinded by Mr. Secretary Fairchild, owing to the remonstrances of the Wayne county peppermint-growers.

PATENT MEDICINE LEGISLATION IN AMERICA.—A Bill has been presented to the Kentucky legislature by Dr. Prentiss Meade, prohibiting the sale of patent medicines in that State unless the formula is printed on the bottle or package. Infringements are to be punishable by a fine for each offence from \$100 to \$500. The Bill was referred to the Public Health Committee.

THE STASSFURT CHLORIDE OF POTASSIUM INDUSTRY.—The salt works belonging to the carnallite output union, which expires at the end of this year, have agreed, in order to make a new treaty of a similar nature possible, to abandon all sales of salts of all kinds until June 30 of this year, including the production for delivery in the period from July to December, 1888. The works also bind themselves to have nothing to do with any measure previous to June 30 which could disturb the condition of the market. The potassium chloride factories have joined in this treaty.

THE HONEY TRADE OF ANTWERP.—In Belgium there is a duty of 10 francs per 100 kilos., or 4*s.* per cwt., on imported honey. In 1886 the imports at Antwerp were 3,089 packages, principally from New York (Cuban honey), and from France, with smaller contributions from Hamburg and London. Mexican honey was formerly much used, but it has lately lost ground in favour of Havana honey, which is now the favourite variety. The centrifugal Havana honey especially is of beautiful quality, and generally bought by pharmacists. As regards Breton honey complaints are made about its adulteration with foreign substances, dextrin especially. Californian honey is not much liked, and has not been able to obtain a firm footing in the Belgian market. It is only used occasionally and for the purpose of mixing with other varieties.

FIRE AT A NEW YORK PATENT-MEDICINE MANUFACTURER'S.—On Jan. 15 an extensive fire occurred at 56 Warren Street, New York, used as a manufactory and warehouse of patent medicines. Mr. Lyman Brown, manufacturer of the "Seven Banks" and "Shakers" medicines, is said to have had a stock worth \$50,000 destroyed, upon which there was an insurance of \$12,000. Messrs. A. J. White & Co., manufacturers of "Kaskine," are represented to have lost \$5,000 by the fire. The offices and storeroom of the U.S. Bottle Packing Company were also made a wreck, entailing a loss of about \$15,000. Before the fire was extinguished the manager of this company placed orders for new and improved machinery, by the aid of which he will be enabled to continue his business with an interruption of only a few days. The house has been completely gutted, only the walls and joists are left standing, the fire having made a clean sweep from cellar to garret.

ADULTERATION OF ANISE WITH HEMLOCK-SEED.—Some time ago attention was called in the pharmaceutical press to a prevailing dangerous adulteration of the anise of commerce with hemlock-seed. A Turkish journal, in mentioning this adulteration, places on record a case which occurred some time ago at Tchataldja, a village in the neighbourhood of Constantinople. A policeman there noticed a party of gipsies actively engaged in gathering hemlock-seeds in the fields. Knowing this seed to be a poison, he stopped the collectors, and asked the purpose for which they gathered

it, when it transpired that the gipsies collected the hemlock for druggists who paid them at the rate of 1*d.* per lb., and used the seeds as an adulterant for anise. The local authorities thereupon visited the drug dealers in the neighbourhood and seized large quantities of adulterated anise.

DUTY ON ALCOHOL IN THE UNITED STATES.—We read in the *O. P. & D. Reporter* that the Paint and Oil Club of New England, comprising all the wholesale dealers in paints, oils and varnishes in the large cities of New England, have petitioned Congress for abolition of the special tax now imposed upon those who sell pure alcohol only. At present all the large and many of the smaller dealers in paints and oils are compelled by law to take out licences as retail liquor dealers, paying therefor the sum of twenty-five dollars, because they sell alcohol for mechanical or scientific purposes, and for the manufacture or the thinning of shellac varnish. Even with this payment they are only entitled to sell at one time less quantities than five gallons. To sell five gallons or over—say by the barrel—it is necessary to obtain a licence as wholesale liquor dealer, for which the additional sum of one hundred dollars is exacted, and it is alleged that this taxation prevents the trade from reaping any profit whatever on the article.

COCA CULTIVATION IN CEYLON.—A correspondent in the *Tropical Agriculturist*, who has been growing coca for some years chiefly for the seed, and is now extending the cultivation in view of leaf harvest, which promises to be most remunerative, writes as follows to our contemporary concerning the cultivation of the plant:—Germination commences on the tree, as may be ascertained by dissection of the fruit. Seeds should, therefore, be sown while quite fresh on the surface of good loam and shaded from the sun. After this no special cultivation is required. The plants can be put out like tea, three to four feet apart, in good land and sheltered, which they prefer to poor soil and exposed ridges. Markham states that the average yield of leaf in Peru was 800 lbs. per acre, and that the profit from a coca farm was 45 per cent. This seems too good to be true; but even at 9*d.* per lb. (present price of leaf in London averaging 1*s.* 3*d.*) the profit should be considerable. Machinery is not required, and the trees may be allowed to run at their own sweet will, leaves being taken off as fast as they arrive at maturity. Fruit-bearing commences at eighteen months, and, when seed is no longer required, can of course be checked, and the energies of the plant directed to producing leaf.

THE HOME OF CINCHONA.—Dr. H. H. Rusby, of New York, who spent two years in South America, recently lectured on South American cinchona before the Pittsburgh College of Pharmacy. His remarks were occasionally of a most extraordinary character, and, if correct, certainly reveal a state of things hitherto quite unknown. He said:—"The home of the cinchona-tree is a belt of about 500 acres far up in the mountains of Bolivia, where gigantic cliffs and equally mighty forest trees have conspired to break the storm-clouds which sweep constantly over it from the Pacific. For this reason the atmosphere is always humid, and moisture is necessary to the existence of the cinchona-tree. The temperature of this belt sometimes falls to 70°, but, as a rule, ranges at 90°. When cinchona was first introduced into the materia medica of Spain, the opposition to it was so violent that no one would use it. Finally, the Countess of Cinchon tried it, and was cured of her malady. Then fashion did what science had failed to accomplish, and cinchona sprang into a demand which could not be met. Natives were put at work gathering it. This they did with such industry and ignorance that the supply was soon entirely exhausted. There is not an ounce of the drug sold to-day but what is the result of cultivation.

THE OPIUM TRADE IN CALIFORNIA.—According to the *Alta Californian* an unusually large importation of prepared opium was received at San Francisco from Hong Kong the other day. It consisted of two hundred cases Li Yuen opium weighing 8,200 lbs., and as the duty on this class of the drug is \$10 per lb., it netted Uncle Sam the snug little sum of \$82,000. There is one rather peculiar feature about this particular shipment of opium. It was prepared in Macao, a Portuguese colony, and from there taken over to Hong Kong and shipped to San Francisco. It appears that there has been going on in China a fight between two brands of opium, one called the "Rooster" and the other the



"Li Yuen" brand. Li Yuen formerly had the contract from the British Government to prepare opium, but having lost it he transferred his plant and experts to Macao to evade the English tax. Although the fact that so large a declared shipment of opium was imported and the duty paid on it seems to indicate that opium smuggling in the States is not so rife as formerly, it is known that there is still a great deal of the inferior opium smuggled into the country by way of Canada. In British Columbia there are 14 boiling or preparing establishments which import the crude drug, on which the duty is only 6 per cent. *ad val.*, prepare it, and then ship it east and smuggle it over the line at Sarnia, Detroit, and other places. Sarnia is said to be a favourite place in Canada for this business.

AUSTRIA'S EXPORT TRADE TO THE UNITED STATES has greatly increased during the last three years, for while in 1885 the Monarchy exported \$7,155,987.82 to the Republic, her exports increased in the following year to \$8,308,644.31, and in 1887 to \$10,167,837.02, an advance of fully 42 per cent. in a period of three years. From a statistical table just published by the five American consular districts of the Austro-Hungarian Empire it appears that the American export trade of the Buda-Pesth district has more than doubled since 1885, while that of the Vienna district has also largely increased. The three articles which constitute the most valuable items of export from Austria to the States are dried fruit (mostly from Trieste), buttons (from Vienna), and glassware (from Bohemia). Of drugs and chemicals, \$67,491.50 were exported, four-fifths from Trieste, and the remainder from the Prague district; of gums, \$129,312.10 were exported, nearly all from Trieste, and \$10,422.70 worth of lumbago from the Vienna district. Herbs and roots figure to the extent of \$64,006.56, of which nearly the whole is declared in the Trieste district and a small part at Buda-Pesth. Of insect flowers and powder \$300,243 went from Trieste, and of mineral waters \$120,673 worth were shipped, pretty equally divided between Hungary and Bohemia. Of zokerit and glycerine \$32,107 were exported from the Vienna district; of sponges \$11,567 from Trieste, and of tartaric acid materials, \$346,524 of which six-sevenths came from Vienna and the rest from Buda-Pesth. The shipments of oils and dextrin were unimportant.

ACCIDENT TO PROFESSOR LUDWIG. — Professor Ludwig, of Vienna, met with a painful accident the other day during a lecture on medical chemistry at the Vienna University. The Professor was speaking on the properties of phosphorus and its affinity for oxygen. Wishing to show the luminosity of phosphorus he ordered the lecture-room to be darkened, at the same time cautioning his hearers to use extreme care in handling the element, and mentioning that in his youth, when experimenting with it, he had contracted a wound with which he suffered for nearly twelve months. The Professor then commenced writing on the lecture board with the phosphorus, which immediately ignited and severely injured his right hand. The wound is an extremely painful one, and requires the most careful treatment. The *Pharmaceutische Post*, in a recent issue, gives some further particulars concerning the accident. It appears that Professor Ludwig, before handling the stick of phosphorus, had wrapped it round with several layers of moist blotting-paper, by which means he had been able to carry out the experiment successfully for twenty-five years. But on this occasion the phosphorus ignited through a sudden change in the temperature, which was exceptionally high, the lecture-room being crowded with students to its utmost capacity. The Professor, after writing the initial letter of the word "Phosphorus," turned his head to call his hearers' attention to the unusual brilliancy of the writing, when the stick ignited and the burning phosphorus ran along the hand of the lecturer. Professor Ludwig, according to the latest reports, is on a fair way of recovery, his wounds having been at once attended to by Professor Billroth and Dr. Salzer.

THE POTASSIUM CHLORIDE INDUSTRY. — The potassium chloride industry in Stassfurt, which was originally called into existence by the Prussian Government, is mainly occupied with the production of carnallite salt. In its first state this is not a marketable article, but a simple treatment of the offices to convert it into the ordinary potassium chloride of commerce. The Government works at Stassfurt formerly committed this process to private contractors, upon whom

they were consequently dependent for the sale of the raw salts. In recognition of this circumstance, which isolated the mines entirely from the potassium chloride market, all the private potassium chloride mines which were subsequently established in competition with the Government works made arrangements for manipulating their raw salts on their own premises. By this means they obtained a preponderance over the fiscal works, which induced the latter to believe that unless they adopted similar measures their sales of raw salts would cease altogether. Shortly afterwards a convention was established between the Government and the private works, whereby a certain sale of raw salts was assured to the former. Considering, however, the numerous new private undertakings in which potassium chloride mining was combined with the manipulation of carnallite, and which had been established during the past few years, the Government works thought it on the whole more prudent not to involve themselves in conventions for any length of time, but to manipulate their raw salts for themselves. The Government, therefore, demanded and received last session a sum of 350,000m. from the Prussian Parliament for carrying out the scheme. That the State has invested its money well in establishing a dissolving station of its own is shown by the following facts. The sale and price of rock salt of all kinds remained last revenue year at nearly the same height as in the previous year. The sale of potassium chloride has declined by about 60,000,000 kg., while instead of the sale price of the former year (1m. 39pf. for 100 kg.) an average of only 1m. 34pf. was obtained. Nevertheless, the total receipts from the sale of the products of the fiscal mines show an increase of 805,350m. as compared with those of the previous year. This rise is entirely due to the circumstance of the fiscal mines manipulating their own raw salts. — *Kuhlen's*.

DRUGS FOR THE AMERICAN ARMY. — The following are some of the tenders which have been accepted by the Medical Department of the United States army for the supply of drugs and chemicals to that department: — McKesson & Robbins, New York — Extract of sarsaparilla, fluid, 1,600 oz., 2½c. per oz.; oil, cod-liver, 1,600 bottles, 13½c. per bottle; pepsin, 800 oz., 8c. per oz.; extract of ginger, fluid, 1,600 oz., 2½c. per oz.; chalk, prepared, 2,400 oz., ½c. per oz.; sodium, borate of, powdered, 2,400 oz., 1½c. per oz.; potassium, nitrate of, powdered, 4,000 oz., 1½c. per oz.; acid, citric, 1,600 oz., 3½c. per oz.; iron and quinine, citrate of, 400 oz., 18½c. per oz.; potassium, chlorate of, powdered, 3,200 oz., 1½c. per oz. Pleasants & Woodworth, New York — Arsenic and mercury, solution of the iodide of, 100 oz., 95-100c. per oz.; iron, sulphate of, commercial, 20,000 lbs., 95-100c. per lb.; ammonia, aromatic spirits of, 2,400 oz., 1½c. per oz.; rhubarb, powdered, 200 oz., 2 95-100c. per oz.; potassium, solution of, 800 oz., 90-100c. per oz.; calomel, 600 oz., 5½c. per oz.; zinc, oxide of, 800 oz., 1½c. per oz.; alum, 1,600 oz., ½c. per oz. Roessler & Hasslacher, New York — Chloroform, purified, 4,000 oz., 2½c. per oz. Richardson Drug Company, St. Louis — Tincture of gentian, compound, 3,600 oz., 1½c. per oz.; ether, spirit or nitrous, 3,000 oz., 2½c. per oz.; extract of glycyrrhiza, 3,200 oz., 1½c. per oz.; zinc, sulphate of, 2,400 oz., ½c. per oz.; butter of cacao, 400 oz., 3½c. per oz.; glycerine, 16,000 oz., 1½c. per oz.; potassium, bitartrate of, powdered, 1,600 oz., 2½c. per oz.; potassium, bromide of, 6,000 oz., 2½c. per oz. R. Shoemaker & Co., Philadelphia — Tincture of chloride of iron, 3,200 oz., 1½c. per oz.; glycyrrhiza, compound powder of, 800 oz., 2c. per oz.; ground ginger, 1,200 oz., 1½c. per oz. Thurber, Whyland & Co., New York — Aq. ammon. fort., 60,000 oz., 1½c. per oz.; lime, chloride of, 50,000 lbs., 4½c. per oz. Hance Bros. & White, Philadelphia — Collodion, 200 oz., 5c. per oz.; acid, hydrobromic, diluted, 144 oz., 2½c. per oz.; pills of camphor (2 gr.) and opium (1 gr.), 8,000, 15c. per 100; pills of copaiba, compound, 12,000, 8½c. per 100. Mallinckrodt's Chemical Works, St. Louis — Bismuth, subnitrate of, 1,600 oz., 12½c. per oz.; sodium, salicylate of, 1,600 oz., 11c. per oz.; ammonium, bromide of, 400 oz., 3½c. per oz.; iodine, 200 oz., 27c. per oz.; potassium, iodide of, 6,000 oz., 17c. per oz.; potassium and sodium, tartrate of, powdered, 6,000 oz., 2½c. per oz. Seabury & Johnson, New York — 500 yards belladonna plaster, 35c. per yard. W. A. Wheeler, New York — 2,400 oz. syr. ferr. iod. 2½c. per oz. Meyer Bros. & Co., St. Louis — 2,400 oz. copaiba, 3c. per oz.; 400 oz. citrine ointment with vaseline base, 5c. per oz.



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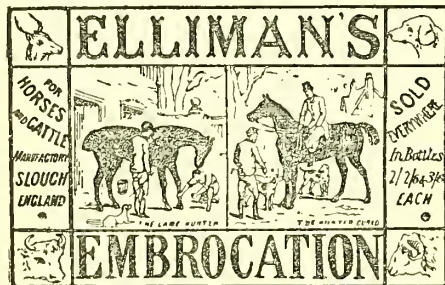
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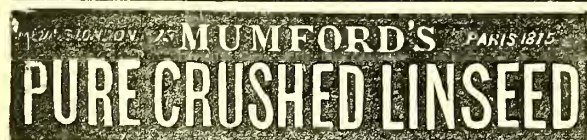
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page 31.

## EDITORIAL NOTES.

THE PHARMACY BILLS OF 1888.

THE Earl of Milltown and his pair of Pharmacy Act Amendment Bills do not form a group calculated to thrill the critic with respect for the methods of procedure adopted by the British legislature. We shall hardly be unjust to the noble lord if we assume that he has taken charge of these Bills without in any serious manner informing himself as to their merits or demerits; we know that he consented to put through the Irish Bill before it had been drafted even; and we have not heard that in respect of either he has ever asked a single question or made a solitary suggestion. It is not very likely that he will find much difficulty in steering his two Bills through the House of Lords, as he is hardly likely to meet with any one there who will know more about pharmacy than he does himself. It may happen that some inquisitive as well as noble lord may ask an awkward question, but even in such a case it is likely that a very small amount of information will satisfy him.

The English Bill, which, as we have frequently shown, is the outcome of a vast mass of pharmaceutical discussion, harangues, pamphlets, and committees, excites a curiously small amount of interest among chemists and druggists themselves. There are probably less than one per cent. of



British pharmacists who would contribute sixpence towards passing it or rejecting it. The almost unanimous feeling in regard to it is one of astonishment that the Pharmaceutical Council, which claims to represent the trade, should be so eager in respect of a subject which is regarded with such general indifference, and so apathetic on other subjects which their constituents generally consider of vital interest.

The new Bill does not differ essentially from that of last year. The wording is changed in some places, and one alteration of some little importance has been made in regard to the certificates of three years' pupilage, which are to be required of all candidates for the Minor examination. Under the present regulations a certificate is required to show that the candidate has been for three years practically engaged in the translation and dispensing of prescriptions; the proposal of the Bill is that this certificate shall show that the candidate has been engaged as the apprentice or pupil of a duly-qualified chemist and druggist, either in his open shop or in a public hospital or dispensary, thus giving to chemists themselves the entire control over the supply of chemists in the future. By last year's Bill the Pharmaceutical Council were to have a dispensing power in regard to such certificates; and it was explained that all they wished for was to be able when necessary to accept certificates of apprenticeship of candidates who might have been trained in the colonies or abroad. In the new Bill such foreign or colonial certificates are made admissible, and the Council do not therefore apply for the dispensing power referred to.

There has never been shown to be any pressing demand for the reform indicated by the Bill, and, if passed, the new conditions would only render formal arrangements which are now pretty general, and might occasionally cause some inconvenience, and possibly some injustice. At the same time it may be allowed that the establishment of a curriculum would, to some little extent, advance the status of the chemist and druggist in the appreciation of the public and of the medical profession.

Lord Milltown's Irish charge is a horse of another colour altogether. We have published so much correspondence and discussion concerning this Bill that we need not detail its principal objects. If it were not that prophecy concerning Irish affairs is more unsafe than prophecy generally, we should be disposed to predict an early grave for this somewhat ill-received bantling. The Irish Pharmaceutical Council, in their very early days, manifested a certain shrewdness in serving for their own licentiates the title of pharmaceutical chemist, which had acquired a certain value in Great Britain. They ignored chemists and druggists altogether, except that occasionally they chose to prosecute them. Last year, however, it was found that in the absence of a register of chemists and druggists, which they have now no means of preparing, they could not get a conviction against people who chose to call themselves by that title and sell poisons. To remedy this state of things the existing Council adopted the wise course of offering with their opponents. On the measure they drifted after that conference, however, they can hardly be congratulated. They propose to register all druggists who were in business before the beginning of this year, and let them sell poisons. For each such registration they want to charge three guineas. As they have utterly failed to meet the pharmaceutical requirements of Ireland by means of pharmaceutical chemists, such registration as is proposed would relieve that difficulty for the present, leaving it, however, to certainly recur in the future. Their only clear course to make their Act a permanently workable one is to do now what they ought to have done twelve years ago—to establish a modified examination for chemists and druggists. Their attempt to haul in a big sum as registration fees and an

extra annual income from all licentiates, whether these wish to join the Society or not (which they also propose), is clever, but it is scarcely justifiable. This Bill is sure of a powerful opposition from the druggists, and from a majority of the pharmaceutical chemists also when it gets beyond the protection of its noble sponsor. By another clause it also challenges the heavy fire of the co-operative stores. Its prospects of enactment are surely very slender indeed.

### IS OUR FOREIGN TRADE DECAYING?

MR. R. GIFFEN has published this week an exceedingly interesting paper on foreign competition with British external trade. The author has frequently been accused of being too optimistic in his essays on our commercial future, but the statistics which, in his latest paper, he offers in support of the cheerful view taken by him seem to warrant the conclusions at which he arrives. Briefly summarised, these inferences are, firstly, that the British export trade still enjoys an enormous preponderance over that of any foreign country; secondly, that we have by no means ceased to progress, although in certain branches, and as regards the trade with a few countries especially mentioned, some of our competitors have advanced at a quicker pace than we ourselves have done; thirdly, that our future expansion of trade must be looked for rather in extra European commerce—more especially with Greater Britain, South America, and China—than on the continent of Europe; and, finally, that we cannot expect in the long run to remain the emporium *par excellence* to which all distant countries consign their produce for distribution to the consumers. The latter fact, indeed, must be patent to any unbiassed observer; and, what is more, there seems no cure for it. In the natural course of things manufacturing industries are bound to increase in neighbouring countries, and as they grow will require to draw their supplies in the way of raw material directly from the producing countries. The making of the Suez Canal and the increase in Continental steamship lines are instanced by Mr. Giffen as having developed this tendency; the colonial policy of Continental nations and the Panama Canal (should that work ever be completed) will probably accelerate it still further. Mr. Giffen's main object in compiling his tables was to ascertain how far Germany, that bugbear of our croakers, was making greater progress in foreign trade than this country; but he has also included in his review France and the United States, the next two important mercantile communities of the world. As to the basis of his work, Mr. Giffen has partly taken the official trade statistics published by each of the four countries concerned; but as these figures, especially in the case of Germany, have not been published on the same plan for the full period of eleven years (1875 to 1885) covered by Mr. Giffen's researches, they have been checked by the official figures of the different countries with which Britain, France, Germany, and the United States transact their business. Comparing the average value of the imports of the United Kingdom between the years 1875-77 and between 1884-85 it is found that they have remained stationary at 381,000,000*l.* per annum. During the same periods Germany's average imports declined from 241,000,000*l.* to 229,000,000*l.*, or 5 per cent.; those of France rose from 185,000,000*l.* to 203,000,000*l.*, or 10 per cent.; and those of the United States rose from 100,000,000*l.* to 130,000,000*l.*, or 30 per cent. But the exports, which are the special subject of the treatise, tell quite a different tale. During the periods above mentioned the average annual value of the United Kingdom's shipments to other countries advanced from 207,000,000*l.* to 223,000,000*l.*, or 8 per cent.; those of Ger-



many from 130,000,000*l.* to 151,000,000*l.*, or 16 per cent.; and of the United States from 112,000,000*l.* to 151,000,000*l.*, or 35 per cent. (chiefly food stuffs). French exports, on the other hand, fell from 145,000,000*l.* to 126,000,000*l.*, or 13 per cent., and that country, which so recently as 1877 had the second largest export trade of the world, has now receded to the fourth rank. But probably the true value of the exports is rather more favourable to Great Britain than the figures indicate, because Germany, France, and the United States send a large share of their exports to us, and, as these goods pay no import duty here, they are declared at their full value in the Customs returns, from which Mr. Giffen's tables are compiled. But our own exports, with few exceptions, are sent to high tariff countries, and we have no hesitation in saying that these goods are habitually entered at the custom-houses at least 10 per cent. below their true invoice value, thus making our exports appear smaller than they really are. We agree with Mr. Giffen that the figures above mentioned do not suggest that German trade has been developing immensely at the expense of that of Great Britain, and the growth in the export trade of the United States, though large, is not of a character to compete severely with our own. Looking at the distribution of our foreign trade, as compared with that of our chief rivals, we find that in Northern and Central Europe Germany does a larger trade than we do, while in Southern Europe (Spain, Italy, Roumania) Britain and France do the largest business, Germany coming next. But to British colonies and dependencies, China and Japan, Egypt and South America our exports far exceed those of the three other countries put together, and it is in those directions that our hope for the future lies. Here we meet the foreigner on equal ground. Protective tariffs may exist, but they are not, as in some European States, framed especially to keep out British goods, and in these countries we, who can buy our raw material freely in the cheapest markets, have the advantage over the tariff-encumbered German and American. And mark the immense purchasing power of these "new countries" as compared with European States. In 1885 Russia in Europe, Sweden and Norway, Denmark, Belgium, Spain, Italy, and Roumania bought from foreigners 239,500,000*l.* worth of goods; while the Argentine Republic, Uruguay, Chili, China, Japan, Australia, and the British possessions in Asia, South Africa, and America purchased 263,750,000*l.* worth. And while Europe advances but slowly, extra-European countries add enormously to their purchasing capacities each year. But even Germany, France, and the United States themselves, jealous as they are of British traders, have to fall back upon this country for a large proportion of their requirements. Germany receives from us 15 per cent. of her total imports, France 14 per cent., and the United States 24 per cent. Now if, as is proved by these tables, the present trade of the United Kingdom is vastly larger than that of any other country, how does it compare with ten and twelve years ago, before the German came down like a wolf on the fold of British customers? Mr. Giffen's answer is fairly reassuring. The average percentage of our sales to foreign customers during the years 1875-77, and between 1884-85, was as follows:—To European countries, including France and Germany, 19 per cent. against 18 per cent.; Egypt, 56 against 47 per cent.; the United States, Argentine Republic, Uruguay, and Chili, 27 per cent. against 27 per cent.; China, 28 per cent. against 28 per cent.; Japan, 53 per cent. against 43 per cent.; and British possessions, 56 per cent. against 55 per cent. In all these countries we have, therefore, fairly kept our own—a difficult enough feat to accomplish, considering our former predominance, and only in Egypt and Japan does our trade show a serious falling off. But the total trade of these two

countries is in itself insignificant in amount as compared with other countries, Japan only importing goods to the value of about 6,000,000*l.* and Egypt 7,250,000*l.* annually. While we have thus maintained our position, Germany, which between 1875-77 provided 15 per cent. of the imports of other European countries, sent 17 per cent. in 1884-85; in the United States, the Argentine Republic, Uruguay, and Chili her proportion advanced from 7 to 11 per cent.; in Japan from 4 to 7, and in the British possessions from 0.2 to 0.5 per cent. of the entire imports. The trade of the United States also advanced considerably, rising from 5 to 6 per cent. in European countries, 6 to 7 in American countries, 1 to 4 in China, and 7 to 9 in Japan. But France tells a melancholy tale of decaying commerce all round. Her share of the imports to other European countries, which was 12 per cent. in 1875-77, only reached 10 per cent. in 1884-85; in Egypt she declined from 19 to 14, in America from 12 to 11, and in Japan from 10 to 5 per cent. Figures like these indicate that France's share in the world's commerce is being rapidly usurped by Germany, which, as a nation of greater commercial genius, will be a far more dangerous rival to ourselves than France has been in the past. The United States also progress rapidly, but not, it seems, to any great extent at the expense of European nations. In round figures the export trade of the United Kingdom has increased by 39,134,000*l.* during the decennium preceding 1886, that of Germany by 26,756,000*l.*, of the United States by 12,967,000*l.*, and that of France has decreased by 909,000*l.* Mr. Giffen ascribes the prevailing exaggerated notions of German progress to the fact that there are no (British) Consular reports from British possessions, where our trade has most advanced; that in Consular reports the same prominence is given to minor countries as to important nations, and that, for instance, six reports from fifth-rate places, speaking of German progress, may be more than balanced by one from an important centre where we have advanced; and from the fact that Consular reports are apt to enlarge unduly upon small branches of trade, while devoting less space to great staples. One aspect of the question Mr. Giffen has passed over, or perhaps it did not quite come within the scope of his paper, and that is that British foreign trade is to a far greater extent in the hands of foreigners who have settled in this country than that of any other nation. This question is such a large one that we cannot discuss it here; suffice it to say that probably the fact that such a very great number of our chief houses bear German names has had more to do with the prevailing notion of the coming German deluge than has the actual growth of German trade.

#### PHYSICIANS AND THEIR PRESCRIPTIONS.

THE capability of pharmacists to decipher illegible caligraphy is so generally known as to be almost proverbial. It is a kind of expertness which they have acquired through long practice in reading the prescriptions of physicians. Their business requires this art; it has received official recognition by being made a part of the requirements of the qualifying examination, at which badly-written medical prescriptions have to be read by candidates, and teachers find it necessary to collect specimens of bad medical penmanship on behalf of their pupils. This is a most regrettable state of affairs, especially as it closely concerns the bodily welfare and, in many cases, the lives of individuals. It is disgraceful that medical men, in whose hands the community put their lives, should imperil their trust by carelessness in such an elementary thing as handwriting. The average prescription



requires no more than two minutes to write in a clearly legible style; but legibility is often sacrificed by the unconscious endeavour to do the work in shorter time. The result is that the prescriptions of many practitioners are undecipherable, except to those in their locality who see them and dispense them frequently. Fortunately such prescriptions seldom leave the neighbourhood in which they are written, otherwise mistakes with them would be more frequent. But there is a large mass of what we may call floating or itinerant prescriptions regarding which the same comment cannot be made. A good example of these were printed in our issue of January 28, and so many widely different renderings of this prescription by experienced dispensers have been sent to us that we feel it to be necessary to call attention to the danger to which prescribers subject the patients by careless writing. In the present case, of eight different renderings which we have printed alum is stated in three, and is evidently correct; but in the other five the translators have not thought of alum at all. The principal ingredient of the prescription, an aperient draught, is rendered as "haust. ferri aper." by two, as "haust. quin. aper." "haust. sennæ aper.," and "cascara aper." by one in each case; being an aperient draught it probably would matter little to the patient which of these were given. But we would that one translator would supply "extract opii fluid.," and another "tincture of capsicum," both with directions "5 ad. Oss. aquam, once a day," but whether it is to be used externally or given internally there is nothing to show.

The duty of the dispenser in such circumstances has never been clearly defined; he has certainly a perfect right, legally, to refuse to compound a prescription which he cannot read; but it is believed that in the case of prescriptions which have previously been dispensed he is justified in doing his best. The best, however, may be a serious matter to the patient if it happens to be contrary to the intentions of the prescriber. It is far better for the dispenser that he should not risk his own reputation or the comfort of his customer by undertaking a task respecting which he is uncertain. When the prescriber's carelessness leads to an error on the part of the dispenser, there ought in fairness to be a division of the responsibility. We refer more particularly to errors regarding ingredients rather than doses. If a prescriber intending to write "tinct. opii camph." writes only "tinct. opii" and the dispenser compounds the prescription as written, both are evidently responsible, the prescriber in the greater degree, for anything serious which may happen. It is part of the duty of the chemist and druggist "to detect unequal doses," and to assure himself of the safety of the patient before he dispenses them. That, however, is a duty entirely apart from bad prescription caligraphy. If it were covered by the medical examinations or made an important part of the medical curriculum, there would be less risk to patients; but there are few teachers who emphasise the importance of distinctness in medical prescriptions. Of the few the late Dr. Scoresby Jackson gave his students the following short rules which are worth quoting:—

Write distinctly.

Do not abbreviate the words so as to make them unintelligible to the dispenser or in any way to cause errors.

Be very particular in writing the characters representing the quantities of the ingredients.

Revise the prescription on every occasion before parting with it.

These rules are so obviously to the point that it is surprising that more attention has not been paid to them, and that medical authorities have overlooked the serious consequences which may follow carelessness in writing pre-

scriptions. A medical practitioner is drummed out of the profession if he ventures to advertise. What less harm is done by a prescription which no two persons can render alike?

#### The Merchandise Marks Act.

London merchants do not seem to like this Act any better as they get to have more experience of it. It is mere trifling to say that they do not like it because it hits their unfair practices. If ethics are involved at all, they are of such an ethereal character as to be quite outside the proper reach of legislation. The professed purpose of the Act was to provide means for preventing the importation of certainly fraudulent imitations of British trade-marks; the actual effect has been—and it may be this was desired by some of the promoters of the measure—to interfere seriously with the natural and acquired advantages which have made of this country the mart of the world. Trade is a very delicate plant to deal with legislatively, and it has flourished so vigorously in this country because of the comparative freedom from restrictions which it has enjoyed. Now it comes to pass that the British merchant is to tell his customer in India or Japan where he gets his goods from. The advocates of the measure think that this course will force purchases from British manufacturers to the prejudice of foreigners. The actual result is and will be that it will divert orders from this country to dealers more advantageously situated in the "country of origin" of the goods. It is not to be expected that the foreign agents in markets abroad will fail to make the most of the official indications which are now required to be attached to goods bought from the Continent.

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#### The Size of Drops.

Attention has been called from time to time to the various conditions which modify the size of drops. For example, it was shown in a paper published in this journal in July last that drops increase in size as the quantity of fluid in the bottle from which they are dropped decreases. Mr. A. F. Reid calls attention in the *Chemical News* to two conditions which modify the size—viz., time and temperature. In his experiments he used a 100-grain pipette, and found that water at 2° C. dropped from this at the rate of one drop per two seconds gave 141 drops to 100 grains, but only 136 drops when 2 or 3 drops were formed per second. At 170° F. water dropped at the rate of 2 or 3 drops per second gives 156 drops to 100 grains, and the number falls 1 drop for every 10° F. decrease of temperature until 110° F.; then the number falls 2 drops for every 10° F. fall, from 90° F. to 40° F.; at the normal temperature (60° F.) 141 drops weighed 100 grains. It is well known that the size of drops varies with the nature of the liquid. The following are the drop measurements of 100 fluid grains of some liquids at 12° C. at the rate of about two drops per second:—

	Drops.
Absolute alcohol .. .. .	387
Ether .. .. .	452
Carbon disulphide .. .. .	428
Sulphuric acid .. .. .	340
Hydrochloric acid .. .. .	182

Mr. Reid suggests that this method may be used in determining the relative quantities of alcohol and water in mixtures of these liquids. Mr. Reid does not appear to have tested the influence of the size of the pipette aperture upon the size of the drops.

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Solid Petroleum. According to the *Revue Scientifique* Dr. Kaufmann has succeeded in solidifying petroleum by heating it for the space of half an hour with from 1 to 3 per cent. of common soap, until the latter has quite dissolved in the petroleum, forming with it a homogeneous mass of the consistency of tallow. Cut up in cubes this compound can be used as fuel for heating purposes. It does not ignite easily, but when once set on fire it burns steadily, slowly, and smokelessly, leaving a carbonaceous residue of about 2 per cent. of its weight. Solid petroleum burns three times slower than coal, but yields a greater heat than the latter. American petroleum, according to Dr. Kaufmann's experiments, is more easily solidifiable than



Russian. Previous experiments to solidify petroleum by boiling it up with common soap appear to have had no practical success.

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Erythro- This alkaloid is to have a short life as a local anæsthetic. A month ago our German correspondent sounded a note of warning regarding it, and now Dr. John Tweedy, of Harley Street, has repeated Professor Lewin's experiments, but with very different results. In a letter to the *Lancet* he says:—"During the last fortnight I have made many trials with solutions of the hydrochlorate of this drug on the human eye, but have failed to observe any decided anæsthetic effect. The solutions were obtained from Mr. Martindale, of New Cavendish Street, and may, therefore, be assumed to be pure and genuine. My first trials were made with a 0.5 per cent. solution; but this produced very severe pain and irritation, accompanied by ciliary injection lasting from six to forty-eight hours. A 0.25 per cent. solution produced only a degree less pain and irritation, without discoverable anæsthesia. A still weaker solution of 0.125 per cent., or 1 in 800, was also negative as regards anæsthesia. After many trials with a solution of this strength, I have been unable to obtain any appreciable anæsthetic effect. The immediate effect is severe smarting, lasting from ten to thirty minutes; and at any time from ten minutes to twelve hours after the application a minute drop of a solution of nitrate of silver or of carbolic acid, applied to the conjunctiva, produced as much smarting in the eye to which the erythrophloïne had been applied as in the other eye." He adds that so far from erythrophloïne producing contraction of the pupil, there was a wide though not complete dilatation. On the whole, he is distinctly of opinion that erythrophloïne cannot be compared with cocaine, and in this he is confirmed by Mr. E. T. Collins, of the Moorfields Ophthalmic Hospital. Our German correspondent informs us that Dr. Liebreich has practically corroborated these statements.

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Drumine. This substance dies hard. In the *British Medical Journal* Dr. John Reid, its discoverer, makes an explanation of Dr. Ogston's results, in which he modifies to some extent his previous statements. He describes the effects of a solution of the "acetate" in rectified spirit when applied to an eczematous patch. After a little smarting there was no more pain, and the disease was cured. One or two applications to the nostril cure a common cold. In tonsillitis a single application caused pain and annoyance by swallowing to vanish. Dr. Reid goes on to say that "Recent observation has brought to light that when drumine is heated strongly (to ebullition) with glycerine (as I did in order to obtain solution needlessly), it is evidently in part decomposed, emitting the odour of burnt feathers [characteristic of boiling glycerine.—Ed. C. & D.], or transmitting to the solution, as a friend on whose gum I applied some for toothache said, the flavour of urine. This is interesting only in so far as pointing to a chemical reaction, and ought not to occur if the solution is made at a proper temperature. Some was no doubt decomposed. The fact that the alkaloid causes a precipitate with phosphomolybdic acid has not as yet been reported in the *Journal*. This year has been very fatal to the growth of *Euphorbia Drummondii* on account of the excessive wet; but in all probability it will soon be possible to place drumine in the market, and to allow the profession an opportunity of testing its qualities for themselves. Were it only used for 'common colds' and 'eczema of the scrotum,' its value could scarcely be estimated." Evidently, therefore, cocaine may go on.

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A Develop- In the *Homœopathic Review* Dr. J. C. Burnett ment of draws attention to a theory of Ameke's, the Homœo- German doctor whose "History of Homœo- pathy. pathy" is generally regarded as a valuable work. Ameke reasons thus:—"Carbolic acid is a good antiseptic; it is itself the end-product of the putrefactive process, and it nevertheless prevents putrefaction—that is to say, "the substance which is formed in a given process is calculated to hinder" the further development of this very process. On this principle Ameke gives *urea* 3 in rheumatic and gouty affections, *cholesterin* in liver affections, *lactic acid* in gleet. In 1882 he reported on four years' suc-

cessful experience with these, and now Dr. Burnett reports on five years' practical acquaintance with some of the remedies. He is especially confident about *cholesterin* as a valuable hepatic. He gives it in the 3rd or 3x dilution.

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English and The promoters of the companies now being Foreign founded for working Ashley's patents for the Bottles. manufacture of bottles by machinery are not very consistent in the temptations they put forward to the investing public. First, they invited subscriptions to the amount of 200,000*l.* (less the vendors' shares) for the purchase of the business of Sykes, Macvay & Co., of Castleford, where the new machinery is to be worked. One of the great inducements offered in the prospectus was that "under the existing system, English manufacturers are undersold by foreign, and especially German and Belgian, manufacturers, who are (in consequence of cheaper labour) able to execute and deliver orders in England for beer, whisky, and wine bottles at lower prices than can be executed with profit by home makers. By means of the new process, however, English makers will be placed in a position to recover for our own country the immense orders at present secured by Continental producers." The English company having been, presumably, floated, another company, with a partially similar directorate, is put forward with a nominal capital of 600,000*l.*, to purchase the patent rights in this invention for Continental countries and America. It is certain that the passage we have quoted from the first prospectus was so worded as to suggest to investors that a monopoly was offered in the use of this bottle-making machinery, and we should be inclined to the opinion that the new prospectus lays the good faith of its predecessor open to grave legal question.

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Vanilla- Sr. C. B. Pedetro, of Mexico, recently, when on growing in a visit to the United States, imparted the following items concerning vanilla-cultivation in Mexico to the *Republican* newspaper of St. Louis:—"Vanilla flourishes in two places in Mexico, Papantia, in the State of Vera Cruz, and Misantia; but the first place is the most important. This town, of about 10,000 inhabitants, is in the land of the Toconaco Indians, who are as indolent and improvident as any people on earth. Vanilla is found wild in the forests around Papantia, clinging to the trees and bushes for support. When the beans ripen in November or December the natives go out into the forests to gather them. All kinds are put into old sacks together and brought into Papantia to market. Here there are a number of buyers, Spaniards or Americans, and the competition reminds one of what is to be seen in a street where second-hand stores prevail. The old women are generally in the lead, half naked, and with haggard faces begrimed with dirt. Then come the children, equally pitiable in appearance, and finally the old men bring up the rear, their long stiff hair, matted and dirty sometimes, standing out twelve inches, while their beards, filthy and long, lend a finish to the picture that is most revolting. The beans are purchased by middlemen at the rate of 42*s.* or 50*s.* per 1,000, taken as they are put up by the natives. One thousand good-sized green vanilla beans will weigh 60 lbs.; the same, when cured, about 10 lbs. The first fine morning planks are arranged and covered with quilts, on which the beans are laid after being divested of their stems. The sweating process, as it is called, then takes place, and has to be repeated seven times before all the water has evaporated. Then the beans are heated slightly and placed on shelves to dry and air. After this they are assorted in lots of fifty beans, graded according to length. In fine weather the curing process takes three weeks, but such weather rarely prevails, and the curing sometimes takes from four to five months. Last year the beans sold for 58*s.* per 100, which was about a pound, but owing to a heavy crop this year and the growing competition in the business, the best beans only bring 50*s.* a pound, or 100, and the inferior from 30*s.* to 42*s.* The principal markets for vanilla beans are New York, St. Louis, and Chicago. They are bought chiefly by wholesale druggists and fine confectioners, and are becoming an important article of Mexican commerce. Last year, from the vicinity of Papantia alone, 60,000,000 beans were exported."



## Trade Report.

**Price to Retail Buyers:**—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.

It should also be recollected that for many articles the range of quality is very wide.

42 CANNON STREET, E.C., February 16.

THERE is no animation whatever in the drug and chemical markets, and prices are lower in almost every instance where any change has occurred. The Cochona auctions resulted in a slight advance, notwithstanding which Howard's quinine has been reduced in price by the makers, while German brands, which have been traded in to a large extent, are 1d. per oz. higher. Citric acid is rather weaker than last week, quicksilver is drier and mercurials easy, cream of tartar may be obtained for a little less money, oxalic acid is also lower, but refined camphor, in spite of the less favourable position of the crude drug, is well maintained. Ergot of rye, saffron, and ipecacuanha must again be quoted dearer, but insect flowers are much lower, and at the next auctions musk may further decline in price. The cod fishing in Norway is now proceeding successfully, and though the new oil already to hand is quoted at high prices, lower prices are accepted for delivery. Shellac and nearly all spices (chillies and new Cochin ginger excepted) are lower. Gums went also cheaper in to-day's auctions, which passed off with a very dull tone. East Indian arables, Kowie animis (Zanzibar sorts), and Batavian cinabar selling slowly at lower figures.

**PERMANENT SAMPLE-ROOM OF BRITISH MERCHANDISE AT HAMBURG.**—Mr. G. A. Pogson, British vice-consul at Hamburg, is about to establish in a central part of that city extensive sample-rooms, where British merchants and manufacturers will be able to exhibit their goods at a fixed charge per annum. A show-case will be provided for each firm in which specimens, catalogues, &c., can be placed, while handbills or price-lists may be sent to the manager of the sample-room for distribution to interested persons. A staff of clerks, versed in foreign languages, and a commercial library will be attached to the establishment in order to enable visitors to obtain full information on commercial matters connected with British goods, and the names and addresses of visitors will be recorded in a register for reference. The promoters of the sample-room will not themselves in any way act as agents or merchants, their object being simply to bring British and foreign traders into business communication. Full information concerning the scheme may be obtained from Mr. G. A. Pogson, Colonnaden 104, Hamburg.

**THE BARCELONA EXHIBITION** will be opened on April 8 next, and February 15 was the closing day for receiving notices of participation.

**OUR EXPORTS TO THE UNITED STATES** show a steady and considerable increase from each of the twenty-three American consular districts of the United Kingdom. In 1885 we shipped 27,648,664l. worth of goods to the States; in 1886, 34,481,727l., and in 1887, 36,404,442l. London does nearly one-third of this trade (11,645,872l. last year), Liverpool coming next with 6,833,556l., Bradford third with 4,448,992l., and Manchester fourth with 2,246,189l. Belfast, Glasgow, Dundee, Nottingham, and Leeds all ship over one million pounds' worth, Sheffield, Cardiff, Birmingham, Newcastle, and Tunstall between 1,000,000l. and 500,000l.; Dunfermline, Dublin, Leith, and Bristol over 100,000l. The trade of Liverpool, Bradford, and Manchester has decreased, while that of London, Sheffield, Newcastle, and Leeds has grown very much indeed.

**"TRUST" LEGISLATION IN THE UNITED STATES.**—Rings for the monopolisation of various industries, or "trusts" as they are called in Yankee parlance, have become such a nuisance in America that bills have been laid before Congress for limiting their operation. One of the proposed measures suggests that the Congressional Committee on Manufactures be directed to inquire into the extent of the combinations, their methods of combination of doing business, their effect upon the prices of any of the necessities of life, and of all productions to the people of the country, upon its internal or foreign commerce, and its revenues from import duties, together with all other matters relating to the same which may call for legislation by Congress.

**THE FOREIGN TRADE OF FRANCE** during the year now concluded shows a slight improvement upon 1886, though not by any means to the same extent as the improvement in British trade during the same year. The French figures are:—

		Imports.	
		1887	1886
Foodstuffs	.. ..	pes. 1,600,387,000	1,523,456,000
Materials for manufacturing	.. ..	1,998,836,000	2,023,484,000
Manufactured articles	.. ..	552,091,000	546,175,000
Other goods	.. ..	119,458,000	115,027,000
Total	.. ..	4,270,772,000	4,208,142,000

		Exports.	
		1887	1886
Foodstuffs	.. ..	pes. 721,175,000	716,895,000
Materials for manufacturing	.. ..	717,387,000	675,564,000
Manufactured articles	.. ..	1,693,567,000	1,686,204,000
Other goods	.. ..	187,645,000	170,132,000
Total	.. ..	3,319,774,000	3,248,795,000

**ACID (CITRIC).**—The market is quite stagnant, at 1s. 7d. per lb. on the spot, and 1s. 7½d. per lb. forward, with sellers at that quotation but no buyers. Juice, meanwhile, is steady, sellers in Messina having to cover their previously-made sales for February delivery.

**ACID (OXALIC).**—At the reduced quotation (3½d. to 3¾d.) per lb. is now the price) a fair business is doing, but *Sal acetos* at 5½d. per lb. remains neglected.

**ACID (TARTARIC)** very dull, at 1s. 6¾d. to 1s. 6½d. per lb. for foreign, and a shade more for English acid.

**ANISE.**—A good trade is said to be doing at the low prices now prevailing, viz.:—50s. to 53s. for *Spanish*; 22s. for *Chilian*; and 20s. to 21s. for *Russian* seed. *Star anise* nominally quoted at from 70s. to 75s. per cwt. for genuine Chinese, but there is none offering.

**ANTIMONY.**—Crude *Japanese* is still quoted at 26l. 10s. per ton; *regulus* at 48l. to 50l. per ton.

**ARSENIC.**—Our spot supplies are exhausted, 11s. 6d. per cwt. is still quoted for powder, forward delivery.

**BLEACHING POWDER** steadier again at 8l. 10s. per ton here, but without very much business. For early delivery the article is rather scarce.

**BORAX.**—There is not much life in this article, which at present is still quoted at 29l. to 30l. per ton.

**CAMPHOR.**—There is very little business doing in this article. *Crude Japan* is quoted nominally at 82s. 6d. to 85s., while *China* is wanting. The *O. P. & D. Reporter*, in reviewing the article, pronounces it to be in a very sound position indeed. It says that the advance is based on the largely increased cost of importing the crude gum from Japan, due to the diminished production following the wholesale destruction of the camphor forests two years ago. At that time the Japanese Government, in preference to supporting the large number of people who were made destitute through the commercial depression which then existed, conferred numerous grants to gather crude camphor, which also embraced the right to fell the trees and cut them up for that purpose. Thus large forests of camphor trees were destroyed so that for many years, or until the young trees have reached the producing stage, the yield of camphor in Japan will be limited.



**CAMPHOR (REFINED).**—Although the value of the crude material is not quite so high just now as it was a few weeks ago, the makers of refined camphor have made no change in their quotations, nor do they contemplate doing so. When crude camphor advanced so rapidly, the refiners did not increase the price of their product in the same proportion.

**CARAWAY SEED** is tending lower, with little business; speculative transactions in Dutch seed, August-September delivery, at 25s. to 26s. per cwt. being reported. On the spot prices rule as follows:—*Dutch*, 26s. to 28s.; *English*, 29s. to 30s.; *Russian*, 21s. to 23s.; *Morocco*, 24s. to 25s. per cwt.

**CINCHONA.**—For Tuesday's public sales 3,170 packages were catalogued, of which 2,044 were of Ceylon, 230 of Indian, 53 of Java, and only 762 of South American growth. There was also a lot of 81 packages from St. Thomas, on the West Coast of Africa. The general anticipation of better values was realised and with fair competition nearly the whole of the Ceylon, Indian, Java, and St. Thomas' bark sold at an advance of from 5 to 10 per cent., medium and ordinary sorts showing the greatest improvement. The unit again recovered the point from which it fell at the preceding auctions, and may now be quoted at 2½d. to 2½d. The following were the prices paid:—**CEYLON BARK:** *Succirubra*, branch, 1½d. to 2d.; chips, weak, 2d.; ordinary branch and young stem, 2½d. to 3½d.; good to fine bright stem, 4d. to 6d.; shavings, ordinary to fine bright red, 2½d. to 6d.; root, 2½d. to 4d.; bright but clumpy 4½d.; quill, fair, partly weak to good bold druggists', 7d. to 9½d.; renewed common, woody to fine rich, 3½d. to 10d. *Officinalis*, branch, 2½d. to 4d.; chips, weak to good bright stem, 3d. to 5½d.; shavings, fair to fine bright, 3d. to 4½d.; root, 4d. to 8d.; renewed, 3½d. to 7½d.; fine rich up to 1s. 2d. *Ledgeriana*, branch, 8d.; chips, low to fine, 2d. to 1s.; renewed, 4d. to 1s. 6d., the latter for an exceptionally fine lot. **INDIAN BARK:** *Succirubra*, branch, 2½d.; chips, 3½d. to 4d.; shavings, bright dry, 3½d. to 4½d.; root, 2½d. to 3d.; renewed, fair, 5d. to 5½d.; good, 8d. to 8½d.; fine rich, 1s. *Officinalis*, fine bright natural small quills at 9½d. to 1s.; mossy small quills, 6½d. to 8½d.; very fine strong bright broken small quills (Condamina mixed with natural hybrid), 6½d. to 10d.; shavings, 6d.; mossy and renewed, 5d. to 10d. per lb. **JAVA BARK:** *Ledgeriana* chips, weak and quilly to strong bright, 3½d. to 8½d.; *Succirubra*, long bright druggists', 9½d. to 10d. per lb. **SOUTH AMERICAN BARK:** Only slightly over 100 packages sold, old *Cuprea* at the low price of 1½d. per lb., and some fine *Calisaya* quills from the Bolivian plantations at 10½d. to 11d. per lb. **WEST AFRICAN BARK:** The supply consisted of 79 bales and 2 cases, imported *via* Lisbon from the island of St. Thomas. The quality was not very good, and the whole lot sold at 4½d. to 5d. for fair *Ledgeriana* chips and weak small quills, and 3d. to 3½d. for weak young ditto. From a private letter which we received this week from a Ceylon planter (who is not personally interested in cinchona) we abstract the following:—"There are still large quantities of bark, both growing and stored, throughout the island, and shipments will largely depend upon the obtainable price. The bottom, however, has been touched, and very little cinchona is being freshly planted. Harvesting early means the extinction of the tree, as shaving leads to renewal, and coppicing to fresh shoots. Still, from ill-health arising from various causes, a very large percentage of the trees dies out every year, and when a tree is thus seen to be dying it is at once taken out and fully harvested—root, stem, and branch. Any considerable rise in price would at once increase the yield of bark beyond what it otherwise would be; but the total available supply, or, say, the number of growing trees, is long past the maximum, and must continue steadily to fall, with little probability of any future increase. Much unsuitable land was once planted with cinchona that never will be so again. There is little available land left, and most of that would be preferred for tea."

**COPPER (SULPHATE)** neglected at 20l. 10s. per ton, nearest price for first mint.

**CORIANDER SEED** firm and in good request at 13s. to 16s.

**CREAM OF TARTAR.**—More liberal supplies have had the effect of rendering holders more tractable. Fine first white could now be had at 125s. to 126s. per cwt., and seconds at 123s. 6d. per cwt. on the spot.

**CUBEBS.**—Some business has been done at steady rates, and the holders still require from 25l. 5s. to 28l. per cwt., according to quality. Several packages will be included in the auctions next week.

**CUMIN SEED.**—Stocks are becoming exhausted nearly everywhere, and prices are therefore very firmly held at 48s. to 52s. for *Malta*, and 36s. to 38s. per cwt. for *East Indian* seed.

**ERGOT.**—It is said that privately better prices have been paid with better inquiry. At Vigo the price is equivalent to 2s. 6d. per lb. London terms, with a very small supply.

**FENUGREEK SEED.**—More inquiry is shown for the new *Egyptian* seed, which is of fine bright quality, and offers at 6s. 6d. to 7s. per cwt. In face of the more liberal supply of *Egyptian* seed, the inquiry for *Mogadore* seed is less pronounced, but the quotation still remains from 8s. to 9s.

**GLYCERINE** unchanged, at 78l. for s.g. 1.260.

**GUM ARABIC.**—About 2,500 packages were offered for sale to-day, but the demand was very languid, especially for Bombay varieties, of which the bulk consisted. *East Indian Amrad* realised 100s. per cwt. for good soft palish, and 56s. down to 39s. for red drop to common dark mixed; fine pale siftings, 66s. 6d.; fair red to small pale ditto, 39s. to 52s.; low and dark red, 35s. to 22s. 6d.; pickings from 44s. down to 20s. *Ghatti* gum remains quiet, and only a few lots sold at 79s. to 82s. for good to fine pale yellow, brown and dark mixed bringing 60s. to 62s. 6d. *Aden* gum all bought in at 6l. 10s. to 6l. 12s. 6d. for good bold drop. *Egyptian Amrad* gum is held at high prices, and only a few lots sold to-day, at 52s. per cwt. for common red, very dusty. Selected *Turkey* gum and sorts are extremely scarce, and at Trieste scarcely any stock is left. Good sorts sold to-day at 16l. per cwt.; 53 packages *Cape* gum all bought in. Common dark red and woody *Australian* sold at 67s. 6d. per cwt.

**INSECT FLOWERS.**—Another decline has occurred in Trieste, and prices have now fallen to the following figures, London terms:—Open flowers, 169s.; half-closed ditto, 179s.; closed flowers, 189s. per cwt. It is possible that at the moment of writing a still lower point has been touched, as quotations have altered almost daily. We understand that some buyers now think it advisable to make their purchases, as they are afraid that the usual American spring orders, the withholding of which caused the Trieste market to give way, may be placed ere long.

**IODINE.**—Unaltered at 9l. per oz., with *Iodide of potassium* at 11s. 3d. per lb.

**IPECACUANHA.**—Since the last auctions there has been a very brisk inquiry, and a further advance of 4d. per lb. has been paid; 6s. 3d. per lb. for fair bright root, while there is nothing further offering at present.

**MERCURIALS.**—Although no official change has yet been made in the quotations, a slight reduction, corresponding to the fall in mercury, would probably be accepted by the makers. *Calomel* is quoted at 3s. 4d. per lb.; other mercurials in proportion.

**MUSK.**—Appearances seem to be in favour of a further decline of this article at the next auctions. We hear that several caddies of fine Tonquin pods, first pile, are being offered privately, as if the owner were anxious to sell before the auctions, but no definite price was named. The arrivals since our last report have been two boxes per *Massilia*, *via* Colombo, three cases per *Nestor*, from Shanghai, and one case per *Rosetta*, *via* Calcutta.

**OIL (COD-LIVER).**—The latest reports from Norway are favourable. The storms have apparently abated, and fishing is proceeding regularly with good result, the livers being of very fine quality. Our dealers are now sending out samples of the new oil, which they quote up to 4s. 6d. per gallon for the best, although similar quality, for shipment, is offered at the equivalent of 95s. per barrel London terms. It is thought that prices will rule lower as the season progresses. The best non-freezing oil of last year's catch is offering at 3s. 9d. per gallon. This week eight cases cod-liver oil arrived from Bombay per *Dracona*.

**OILS (ESSENTIAL).**—*Linise* oil on the spot offers at 6s. 8d. to 6s. 9d. per lb., and to arrive at 6s. 6d. per lb., which is equivalent to 7s. per lb. landed terms. Oil of *Cassia* is now



quoted at 3s. per lb. on the spot, usual terms. None is ordered for arrival at present, and the last price paid in this position was 2s. 11d. per lb. c.i.f. Oil of *Cinnamon*, since the shipment which we recorded a short time ago, has not been forthcoming very liberally from Ceylon. The shipments from that island in the period between October 1 and January 12 have been:—In 1887-8, 15,181 oz.; in 1886-7, 1,929 oz.; in 1885-6, 13,525 oz. There is no alteration in *Cronella* oil, which still offers at  $1\frac{15}{16}$ d. to 1d. per oz. for five brands on the spot. The exports from Ceylon from the beginning of the season (October 1) to January 12 were:—In 1887-8, 3,039,696 oz.; 1886-7, 1,938,944 oz.; 1885-6, 2,38,028 oz. Oil of *Cloves* may be quoted at 5s. to 5s. 6d. per lb., according to quality. *Lavender* steady, at 7s. for Finch in bulk, and 7s. 9d. for bottles. Oil of *Lemongrass* is quoted at  $1\frac{1}{2}$ d. to 2d. per oz., with slow demand. *Italian* essential oils unaltered. *Otto of rose* quiet on the basis of 2s. 6d. per oz. f.o.b. Constantinople for well-known brands. American oil of *Peppermint* (HGH) was last sold on the spot at 11s. 6d. per lb., and is being offered at 11s. per lb. for forward delivery. *Menthol*.—We believe that it is not impossible that a change may be made in the price of Cocking's brand, which is still quoted at 10s. 6d. per lb. at present.

**OILS (FIXED).**—*Cocunut* oil remains firm at 24l. 15s. to 25l. for good to fine Ceylon on the spot, Cochin 22l. to 29l., and Mauritius 24l. 10s. *Cotton-seed* oil on the spot 17l. 17s. 6d. for crude, and 20l. 10s. for refined. Hull 16l. 7s. 6d. and 18l. 15s. *Linseed* quiet, spot 18l. 15s. to 18l. 17s. 6d., March-April 19l. 7s. 6d., May-August 19l. 15s., September-December 19l. 10s. to 19l. 15s. Hull 18l. 10s. to 18l. 15s. *Palm* oil quiet at 22l. for fine 18os. *Rape* oil easy, spot 23l. 5s. to 23l. 10s. for brown at 25l. for refined. *Petroleum* closes dull at  $6\frac{5}{16}$ d. to  $6\frac{7}{16}$ d. for American oil on the spot, month  $6\frac{5}{16}$ d., March  $6\frac{1}{4}$ d. to  $6\frac{1}{2}$ d., April  $6\frac{3}{16}$ d.; Russian oil  $6\frac{1}{4}$ d. on the spot.

**OIL (OLIVE).**—Our market is now very quiet, *Mogadore*; being nominally quoted at 33l. 10s., *Sicilian* at 34l. to 35l., and *Spanish* at 37l.

**OIL (TURPENTINE)** dearer. American spirits, 29s. 3d.; March-April, 29s. 9d.; July-December, 26s. 6d.

**OPIMUM.**—Nothing doing here. The reports from Smyrna do not mention any increased activity on that market; in fact, during the week preceding February 3 only about 10 casks changed hands. Agents' reports from the interior of Asia Minor, dated January 31, state that throughout the growing districts the position is the same. Snow has covered nearly all the plants, and has preserved them from the effects of the frost. A few uncovered plants here and there have been damaged, but they are of small importance as compared with the heavy sowings which have been made. The present outlook for the coming crop is a good one, and no change can be expected to occur until the middle of March, when the snow disappears.

**QUICKSILVER** has been neglected all through the week, and lower rates now rule. The importers now quote 8l. 15s., but second-hand holders are down to 8l. 7s. 6d. per bottle. Our stock during the month of January has been largely augmented by excess of imports over exports, the former amounting to 1,439, the latter to 2,181 bottles. The first-hand stock in London at the end of January was computed at about 46,000 bottles, against 52,000 at the end of January 1887.

**QUININE.**—It appears that the famous "syndicate" have again appeared on the market; at least, large purchases have been made this week through the same brokers who operated for the "ring" before. Under these circumstances the prices of *German* quinine in bulk have advanced about 1d. per oz., and it is quite possible that they may continue to rise further until the speculators think it time to stop, when there may be a corresponding decline. It is certain that practically all the transactions now made are for speculative purposes only, and not for *bona fide* consumption. The German manufacturers' sales since last Saturday are very variously estimated at from 70,000 to 200,000 oz., but there is every reason to believe that the magnitude of the operations is being persistently exaggerated. There certainly is a strong bull party at work just now, but this clique received a disagreeable check when on Wednesday Messrs. Howards reduced their price 2d. per oz., instead of raising it, as it was thought they would do. Almost all the quinine

sold this week has been for forward delivery. To-day the market closes quiet. German in bulk is quoted at 1s. 10d. per oz., but the agents for the Mannheim and Brunswick makers do not seem to offer anything. Howard's brand is officially quoted at 2s. 4d. per oz. for vials and 2s. 2d. for bulk. There are various rumours concerning large transactions on the Continent. The *Fabbrica Lombarda* of Milan is said to have sold 100,000 oz. yesterday at the equivalent of 1s. 9 $\frac{1}{2}$ d. per oz., and a shipment of 70,000 oz. is said to be on the way from the United States to England. We have not been able to confirm the truth of these reports.

**SAFFRON** very firm and slowly but steadily rising. The best Valencia saffron is now quoted at 48s. 6d. to 50s. per lb.

**SHELLAC.**—At Tuesday's auctions prices again declined somewhat, *Second orange* being 1s. to 1s. 6d. per lb. cheaper; *Button* lac is dull of sale, and *Garnet* remains neglected. Altogether about 580 cases were offered, and the greater part being catalogued as "without reserve" was disposed of, *First orange* unworked ASSL at 65s., *Second orange* fair quality 47s. to 48s. 6d., bronze and out of condition (imported *via* New York), 43s. to 44s., unworked livery 43s. 6d. to 44s. 6d. *Garnet* free AC 42s., blocky 38s. to 39s. weak third *Button* 43s. to 44s. Prices for arrival have also ruled lower, TN second orange selling at 48s. per cwt. c.i.f. January-February shipment, February-April at 49s. per cwt. c.i.f. From India we hear that at Mirzapore nearly all the shellac factories are working to the full extent of their capacity. So far from the sticklac supply having been short, it has been larger than ever, even although, perhaps, it may be true that the regular supplying districts have yielded less sticklac than usual this year. The increased demand and the improved prices in London caused the manufacturers, at considerable cost, to obtain sticklac from districts whence it had not hitherto been procured.

**SODA SALTS.**—*Ash* very quiet, and only a small business doing at  $1\frac{1}{2}$ d. to  $1\frac{3}{4}$ d. per degree landed here, and 1d. less 6 per cent. on the Tyne. *Bichromate* firm from 5l. 12s. 6d. up to 6l. per ton. *Caustic* dull at 7l. for cream, and 7l. 5s. to 7l. 10s. for white 60 per cent. *Crystals* remain pretty firm at 47s. per cwt. in London, and 40s. per cwt. on the Tyne. *Nitrate* remains quiet at 9l. to 9l. 5s.

**SPICES.**—With very few exceptions, quotations again ruled lower at the weekly auctions. *Arrowroot* remains flat, good St. Vincent selling at 3 $\frac{1}{2}$ d. per lb. *Cassia lignea* again cheaper for broken, 14s. 6d. to 15s. being the best obtainable price. *Chillies* must be quoted 1s. per cwt. dearer, a fair quantity Zanzibar selling, without reserve, from 30s. 6d. for dull, to 32s. 6d. for fine bright, Sierra Leone 23s. for ordinary yellow mixed, and 27s. to 27s. 6d. for good red. Zanzibar *Cloves* have declined fully  $\frac{1}{4}$ d. per lb., fair to good bright selling at 7 $\frac{3}{4}$ d. to 8d.; Amboina also lower, at 9 $\frac{1}{4}$ d. per lb. for fair. Since the auctions a better tone has prevailed for Zanzibars, with sales of 700 bags up to 8d. per lb. The new crop of Cochin *Ginger* is now arriving, and the first lots offered at sale on Wednesday realised 1s. per cwt. advance, small to bold, partly cut, selling at 30s. to 75s. per cwt. Small Jamaica sold at 62s., and rough limed Japan at 15s. 6d. per cwt. *Mace* and *Nutmegs* quiet, and without any important business. *Black pepper* steady, without business; *White pepper*,  $\frac{1}{8}$ d. cheaper for Penang, which sold at 10 $\frac{3}{4}$ d., and  $\frac{1}{4}$ d. for Siam, for which 8 $\frac{3}{4}$ d. to 8 $\frac{1}{2}$ d. was obtained. *Pimento* about steady, ordinary to fair 2 $\frac{1}{2}$ d. to 2 $\frac{7}{8}$ d. per lb.

**STROPHANTHUS.**—The *Pharm. Zeitung* mentions that German buyers of strophanthus seed have lately been in the habit, when placing their orders in London, to state especially that they did not require unripe seed, a qualification which caused some surprise on our market. The 1887 crop of strophanthus appears to have yielded rather leaner seed than that of the previous year. It has been tried to judge the ripeness of strophanthus by its darker or greener colour, and by the degree of hairiness of the seed, but these indications do not afford a proper test, because seeds of various colours, upon being placed in the earth, have all germinated, thus showing that they were all ripe.

**TEA.**—The market for common *China* Tea still remains very depressed. Kaisows show generally slightly better value even than last week, and at but little more money really useful teas can be bought. Many grocers are now selling a 1s. tea, though the profit, after paying expenses, cannot be



much more satisfactory to the seller than the flavour will be to the buyer. Good Souchongs are rather firmer, and are taking the place of finer Soomooos, of which there is a great scarcity. Scented Capers from about 7d. to 11d. are still wonderfully cheap, but there is not much really fine tea to be had. Green teas continue steady, with rather larger supply. *Assam* teas show as yet no signs of a lower market, with but moderate supplies for the week. There will, however, be large quantities on the market ere long, and teas under 8d. or 9d. can hardly keep up long at present rates. We advise buying these grades from hand to mouth, though teas from 11d. up are really good value, and some capital 1s. to 1s. 1d. Pekoes are to be bought, and are worth attention. *Ceylons* show no sign of recovery, and demand for all but finest sorts is very languid.

### THE DUTCH MARKET.

AMSTERDAM, February 11.

**CINCHONA.**—The next auction here will be on February 23. The following lots will be offered:—1,375 bales 292 cases Java bark; 32 bales 5 cases East Indian bark; consisting of 107 cases succirubra quills; 103 bales 54 cases succirubra broken quills and chips; 39 bales succirubra root; 26 cases calisaya Schubkraft quills; 43 bales calisaya Schubkraft root; 8 bales 55 cases calisaya Ledgeriana quills; 741 bales 42 cases calisaya Ledgeriana broken quills and chips; 213 bales 4 cases calisaya Ledgeriana root; 10 bales calisaya Javanica broken quills and chips; 6 bales calisaya Javanica root; 12 bales calisaya Caloptera broken quills and chips; 4 bales calisaya Caloptera root; 155 bales calisaya officinalis broken quills and chips; 23 bales calisaya officinalis root; 4 cases hybrid quills; 13 bales hybrid broken quills and chips; 32 bales, 5 cases East Indian bark broken quills and chips; weighing together about 127 tons, of which about 94½ tons manufacturers' bark, containing the equivalent of about 10,000 lb., or about 47 per cent. sulphate of quinine, and about 32½ tons druggists' bark.

## The Chemist and Druggist of Australasia.

JANUARY 1, 1888.

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Special article on "The Propagation of Typhoid Fever."

### COLONIAL REPORTS.

*New South Wales.*—Pharmacy Board—Pharmaceutical Society—Incorporation Bill; Deputation to the Minister of Public Instruction—Action against a Sydney Pharmacist; Damages for Alleged Sale of Carbolic Acid in Mistake for Carbolic Oil—Fatal Poisoning in 1886.

*New Zealand.*—Pharmacy Board—Midland Pharmaceutical Association—The Pharmacy Bill—Sheep Dips; Awards at the Metropolitan Agricultural Show.

*Queensland.*—Examination Papers—Pharmaceutical Society—Queensland Plants—General News.

*South Australia.*—Pharmaceutical Society—Obituary—General News.

*Tasmania.*—Special Letters from Hobart and Launceston.

*Victoria.*—Pharmacy Board—Pharmaceutical Society—Chemists Prosecuted for Sale of "Rough on Rats"—General News.

Poisonings—Obituary—Trade-marks applied for—Patents applied for, &c.

(Copies may be obtained at the London office, 42 Cannon Street, E.C., 6d. each, or the journal will be supplied to extra Australian subscribers at 5s. per annum.)

### BOARD OF TRADE RETURNS.

IMPORTS		Jan., 1885	Jan., 1886	Jan., 1887
Drugs, unenumerated	value £	63,782	4,199	77,093
Chemical manufactures and products, unenumerated	" "	8,785	91,23	103,754
Chemicals & dyestuffs, unen.	" "	130,166	698,328	1,012,436
Oils, not enumerated	" "	73,067	80,112	100,616
Alkali	" cwt.	2,33	4,152	2,418
"	value £	1,396	1,906	1,581
Brimstone	" cwt.	28,547	81,962	29,225
"	value £	7,031	19,139	7,238
Nitrate of soda	" cwt.	115,700	22,640	40,403
"	value £	£2,972	10,761	13,178
" of potash	" cwt.	13,248	16,150	32,702
"	value £	12,376	14,835	28,861
Quicksilver	" lbs.	337,200	705,300	857,964
"	value £	26,976	67,799	114,804
Cinchona bark	" cwt.	11,203	16,551	12,944
"	value £	75,425	77,588	52,912
Gum Arabic	" cwt.	14,878	1,511	3,115
"	value £	57,732	7,358	14,910
Lac, seed, shell, stick, and dye	cwt.	11,203	9,807	13,778
"	value £	33,847	26,318	40,430
Cinnamon	" lbs.	138,35	41,210	51,285
"	value £	5,008	1,310	1,864
Ginger	" cwt.	1,421	1,155	2,002
"	value £	3,106	1,646	1,458
Pepper	" lbs.	1,796,849	1,653,598	1,814,140
"	value £	57,992	53,487	62,809
Bark (for tanuurs' or dyers' use)	cwt.	12,198	23,812	21,240
"	value £	4,675	7,464	7,709
Aniline	" "	18,742	19,187	22,910
Alizarine	" "	22,003	17,798	22,622
Other coal-tar dyes	" "	—	480	1,035
Cochineal	" cwt.	2,279	805	1,002
"	value £	15,670	5,165	6,851
Cutch and gambier	" tons	2,085	2,333	3,633
"	value £	45,237	59,138	93,500
Indigo	" cwt.	16,164	13,367	20,366
"	value £	381,946	322,824	499,140
Madder, madder root, &c.	" cwt.	1,779	2,751	1,202
"	value £	2,345	3,453	1,657
Coco-nut oil	" cwt.	17,448	24,264	6,457
"	value £	25,422	31,880	7,751
Olive oil	" tons	1,248	2,023	1,956
"	value £	45,410	80,758	69,657
Palm oil	" cwt.	60,456	73,548	81,772
"	value £	73,579	77,439	80,633
Petroleum oil	" gals.	7,342,018	5,416,533	9,481,390
"	value £	216,234	151,194	248,457
Oil seed	" tons	1,052	835	1,355
"	value £	27,621	22,454	33,194
Turpentine	" cwt.	26,712	39,540	23,150
"	value £	35,571	55,774	32,013
Paraffine	" cwt.	25,544	20,574	37,937
"	value £	43,497	29,311	53,569
EXPORTS				
British and Irish produce—				
Drugs and medicinal preparations, unenumerated	value £	71,317	66,524	72,159
Sundry chemicals	" "	238,250	293,554	358,576
Painters' colours and materials	" "	89,539	83,204	92,816
Alkali	" cwt.	523,157	404,417	448,542
"	value £	147,560	117,962	122,175
Bleaching materials	" cwt.	114,300	101,576	111,379
"	value £	37,155	36,566	42,721
Seed oil	" tons	5,535	4,894	6,138
"	value £	117,940	101,245	125,282
Soap	" cwt.	24,076	28,727	29,789
"	value £	28,329	32,086	27,911
Foreign and Colonial merchandise—				
Chemicals, unenumerated	" "	15,314	21,786	33,746
Cinchona bark	" cwt.	6,627	4,905	9,538
"	value £	35,023	22,340	23,160
Cochineal	" cwt.	617	866	469
"	value £	4,861	5,373	2,624
Cutch and gambier	" tons	351	775	674
"	value £	8,663	18,023	17,567
Gum Arabic	" cwt.	3,247	1,632	2,773
"	value £	15,270	6,857	12,644
Indigo	" cwt.	4,432	6,702	3,958
"	value £	14,633	18,592	12,347
Lac, seed, shell, stick and dye	" cwt.	3,865	6,240	5,509
"	value £	88,542	154,584	136,207
Coco-nut oil	" cwt.	2,676	4,631	9,204
"	value £	3,698	6,793	13,771
Olive oil	" tons	210	121	181
"	value £	10,173	5,090	6,803
Palm oil	" cwt.	27,867	41,449	46,234
"	value £	35,004	43,667	45,139
Petroleum oil	" gals.	42,502	35,103	67,591
"	value £	2,382	1,849	2,527
Quicksilver	" lbs.	284,437	448,051	163,592
"	value £	22,348	43,245	21,099
Nitrate of potash	" cwt.	6,746	2,516	6,474
"	value £	5,589	63,800	5,164
Cinnamon	" lbs.	90,065	2,561	66,716
"	value £	2,993	2,561	2,339
Pepper	" lbs.	1,215,623	1,083,000	773,660
"	value £	36,711	35,906	25,067





**Memoranda for Correspondents.**

*Always send your proper name and address; we do not publish them unless you wish.*

*Write on one side of the paper only; write early; and devote a separate sheet of paper to each query if you ask more than one, or if you are writing on other matters at the same time.*

*If you send us newspapers, please mark what you wish us to read.*

*Ask anything of pharmaceutical interest; we shall do our best to reply.*

*Before writing for formulae consult the last volume, if you have it.*

*Letter queries, &c., not noticed in this issue will, if possible, be attended to next week.*

**Unscrupulous Use of the Telephone.**

SIR,—Inadvertently we have so far made a mistake in our simple statement of the facts, as the dates, instead of being December 7 and 8, were December 6, that is, when we received Messrs. Lorimer & Co.'s order for 6,000 oz. sulphate of quinine (limited at 2s. 1d. per oz.), and December 7, when we wired to them result, making the counter offer of 2s. 2d. per oz. for 3,000 oz.

The report of the Telephone Company is to the effect that Messrs. Lorimer were connected with us on December 7, between 1 and 2 o'clock, when, as we said, we received their order during dinner-time.

The contract written out on the same day for these 3,000 oz. at 2s. 2d. bears the date of December 7, as per press-copy in our letter-book.

We have nothing further to say in this matter, as facts speak for themselves.

Yours respectfully,

A. & M. ZIMMERMANN.

6 and 7 Cross Lane, St. Mary-at-Hill, E.C., Feb. 15.

**The Incorporated Society of Chemists and Druggists (Limited).**

SIR,—By yesterday's post we received a circular from a Dr. R. Taylor, describing himself as secretary *pro tem.* and solicitor to the Incorporated Society of Chemists and Druggists (Limited), and who says he is directed by the council (whose names he does not give) to ask for our co-operation.

We suppose this is another trade protection society, as the circular (which we enclose) appears to differ but little from the usual programme of these institutions.

The last paragraph of the circular is expressed to obtain a decision as to proprietary rights in the words "Hop Bitters" and "Blood Mixture." The first of these marks, "Hop Bitters," is already being contested by Mr. Beck, of Hastings, and we are expecting our application for the expungement of the trade-mark "Blood Mixture" to come on for hearing during the present term.

Dr. Taylor's society, therefore, seems only to contemplate earlaction in cases which have already been taken in hand by individuals, and we think the multiplication of societies to whom litigation is as the breath of life, and whose resources must in the long run be supplied by our trade, likely to bring many ways disadvantageous to us all, especially when (as in this instance) they endeavour to obtain "co-operation" by proposing to do that which is already being done by others at their own cost.

We are, sir, yours obediently,

1 Norton Folgate, E.C., J. BEEDZLER & Co.  
15 February.

The circular referred to by Messrs. J. Beedzler & Co. is issued by Dr. C. R. Taylor on behalf of the trade protection society whose objects and circumstances we reported upon November 19, 1887. It is only fair to the society to state that they profess as their primary object, not litigation, but the provision of advice to their members. So far they are working along very quietly, so quietly, indeed, that it is only occasionally that we hear anything about them. It is certainly singular that they should have announced their intention to obtain decisions in the two cases which are

actually in course of trial in the courts. But if Messrs. Beedzler & Co. and Mr. Beck can get the trade points in regard to the titles named settled, chemists generally, at all events, will be very grateful to them. But it must be borne in mind that it is quite possible that their cases may be decided leaving the trade questions as open as ever. Then will be the chance for our incorporated friends.]

**Brighton Pharmacists.**

SIR,—In your last week's issue you record the surprise of "Truth" that the Brightonians had not more common-sense than to be gulled by the American quack who lately visited this town. But what shall we say of the three or four "enlightened pharmacists" who, after deriding his nostrums during his stay, have since taken up agencies for the sale of them, and are largely advertising the same? To what a pitch has pharmacy arrived! It would seem that some of its inhabitants are determined to keep up the reputation of "Silly Sussex."

BRIGHTON SELTZER.

**The Inland Revenue and Anti-catarrhal Salts.**

SIR,—I recently received notice that an information had been laid against me for selling anti-catarrhal salts unstamped. In answer to the charge I drew the attention of the Board to a paragraph in one of their own circulars, which runs as follows:—"In practice the Commissioners hold that liability does not attach in respect of preparations to be burned, and the fumes inhaled. Such preparations are not regarded as used or applied externally or internally." I pointed out that my salts were not applied externally or internally, but that a fume from them was inhaled.

In reply I am informed that the exemption to which I refer in favour of preparations to be burned and the fumes inhaled does not apply to smelling salts, which have always been held by the Board to come within the charge of stamp-duty.

I paid a mitigated penalty of 1*l.* to stay further proceedings. As several other chemists in this town have been similarly served, I thought you might think it desirable to publish a note of warning.

Yours truly,

Hastings, February 15.

THOS. D. VINT.

**Irish Pharmacy.**

SIR,—I was an assistant in 1875, and not having had the benefits of the year of grace given by the Society placed before me, did not think of presenting myself for examination. A few years ago, however, I thought of going into business on my own account, and as I did not wish to come into collision with the Society, I wrote them stating that I wished to go in for the exam.; but not having been in the employment of pharmaceutical chemists or L.A.H., and being in a good situation, which I could not leave to fulfil that part of their arrangement (as I had a wife and family). I wished to know if they would accept me, as I had been fifteen years connected with the business. They replied to the effect that I must adhere to the rules of the Society. So that put an end to my study in that direction, and also to my starting business at that time. I thought it hard, but could find no remedy. So I determined to wait, thinking that by-and-by a second grade would be established, and that I then might have an opportunity of going into business without any fear. But it appears I have been waiting in vain, as it seems the Society are only going to recognise those who in defiance of the law have gone into business, while those who have acted legally are to be entirely ignored. It seems to be the rule now to protect the lawless, so our only chance seems to be to do as many of our more courageous brethren have done—become lawless too.

Yours,

QUID PRO QUO.

SIR,—Reading the report in your Journal of a meeting of licentiates of the Pharmaceutical Society held in Dublin on February 3, I was struck with the President's reply to Mr. Guiler regarding apprentices in 1875. The President said that "with regard to apprentices the opinion of the Council was that any young men who were apprentices at the close



of 1875, and who had not gone into business on their own account during the last twelve years, were very unlikely to do so for the rest of their career." Why does the President repeat this statement so frequently, and how can the Council have arrived at this conclusion?

Assistants, at the time of the passing of the Act, entered upon their career expecting to have the same privileges as their masters enjoyed. They have as much at stake as the chemists and druggists who have gone into business since 1875 (and who have the promise of being recognised by the Pharmaceutical Society); they have entered upon their life work, have spent the best years of their lives at a business in which they are to be debarred from the proud position to which every honest, pushing man aspires, that of controlling a business of his own; and are they to stand quietly by and see others who have entered upon the same business, perhaps years after, becoming registered without examination, when they are more entitled to consideration because they have not attempted to evade the law? The privilege ought to be extended to them of being registered on passing such an examination as would satisfy any business man that they know the drugs they are daily sending out.

Yours truly,  
AN ASSISTANT IN 1875. (1/75.)

[These correspondents should state their cases to a member of the House of Lords, and ask him to consider it in reference to the Bill which Lord Milltown has promised to introduce.—ED. C. & D.]

#### Is Beer a Harmless Poison?

SIR,—Professor Tichborne, in his letter which appears in your issue of February 11, writes of beer as "a harmless poison"; but is it so, or has not the professor given expression to a very dangerous and "fundamental error"? Is it not rather a fact that alcoholic liquors in their various shapes are doing a thousand times more harm than all other poisons put together?

Faithfully yours,  
C. E. T. S.

#### Syr. Ferri Hypophosph., B.P.C.

SIR,—I have made two batches of syr. ferri hypophosphitis from the B.P.C. formula, and each time, within a few minutes of making, sulphuretted hydrogen has been developed in the syrup, becoming stronger on keeping. If you or your readers would kindly show me the cause of this and how it may be avoided I should be obliged.

Yours truly,  
February 14. SYRUPUS. (259/67.)

[We pointed out in an article published in our last volume, page 392, that a "serious objection to this syrup is that it is apt to acquire a sulphuretted odour, owing to the ferrous hypophosphite being made in the cold," so that an oxidation reaction occurs between the hypophosphite and the sulphate, whereby the former is raised to phosphate and the latter to sulphide. The change may be avoided by mixing boiling solutions of the ferrous sulphate and calcium hypophosphite. A better method, however, is that suggested in the article already quoted, viz., to make the hypophosphite solution from the precipitate afforded by 240 grs. of sulphate of iron and 246 grs. of carbonate of soda; this to be dissolved in a mixture of hypophosphorous acid (1 oz.) and water (2 oz.), the solution filtered, and added to 17 oz. of syrup.]

#### Soluble Essence of Ginger.

*Zingiber* (in September 17 issue) gives particulars *re* Essence Ginger (soluble), which I have been unable to work successfully.

Essence of ginger, or soluble essence of ginger, we can make to our entire satisfaction in point of aroma and strength, but have never succeeded in keeping it bright if once it is diluted, nor can we do so with so small an addition of strong spirit as recommended by "*Zingiber*." If he or others will give some further particulars we shall be glad.

Yours,  
META. (254/53.)

#### The Sale of Poisons.

SIR,—Much might be done regarding an amendment of the Pharmacy Act, but what is more to the purpose is a rectification of the Poison Act. No one can take up a daily paper without seeing some sad poisoning case, either intentional or accidental, and I think that poisons are too easily obtained. I am sure this is a matter of vital importance regarding the public safety, and the sooner strict measures are taken in sale of poisons the better. I have not much hesitation in stating that if a petition similar to what is here given were presented to the trade and the medical profession, they would coincide with this view, and if unanimously approved and a Bill presented to Parliament, there is little to prevent the same from being passed. Then, I think, chemists and druggists might improve their position considerably, for then the public would not be so much imposed upon with the cheap drugs and adulterated medicines of the present day.

I am, yours,  
Edinburgh. POISON. (257/26.)

#### PROPOSED PETITION.

1. The sale of all poisons to be kept strictly within the charge of qualified chemists and druggists.
2. That all patent and proprietary medicines as a class of medicines containing poisons, only to be sold by chemists and druggists.
3. That all patent and proprietary medicines containing poison, or poisons especially, be made known to Government, so as to enforce a law for only chemists and druggists to sell.
4. That no store, company, or body can dispense or sell medicines, drugs, or poisons, or patents containing poisons, unless members constituting company or body are qualified chemists and druggists, and members of the Pharmaceutical Society.
5. That all persons in future desirous of starting in business become pharmaceutical chemists; that others practising as chemists and druggists without due qualification will be considered illegal.

#### Dr. Warren's (Philadelphia?) Pulmonic Cherry Cordial.

SIR,—I subjoin a formula, which I hope is what is wanted:—

Cort. pruni virg.	..	..	..	..	10 lbs.
Rad. Ipecacuanhae	..	..	..	..	20 oz.
" sanguinariae	..	..	..	..	24 "
" scillae	..	..	..	..	12 "
P. glycyrrh.	..	..	..	..	5 "
Cocci cacti	..	..	..	..	2 "
Sem. anisi	..	..	..	..	32 "
Sem. feniculi	..	..	..	..	8 "
Cort. aurant.	..	..	..	..	16 "
Morph. acetat.	..	..	..	..	12 drachms
Acid. sulphuric.	..	..	..	..	1 oz.
Alcohol	..	..	..	..	8 gallons
Aque	..	..	..	..	8 "
Sacchari albi	..	..	..	..	40 lbs.

Grind all the articles to a coarse powder, and put all the ingredients except the water, cherry bark, sugar, and sulphuric acid into the alcohol. Let stand for a week, shaking occasionally. Steep the wild cherry bark for two days in sufficient water to cover, then percolate through it the 8 galls. of water, add this to other ingredients and let stand two or three days longer, shaking occasionally, filter, and add the sugar, and when dissolved, the sulphuric acid. The acid is used to intensify the colour.

Dose: 5j. to 5ij.

Edinburgh, February 11.

J. MORISON.

#### MISCELLANEOUS INQUIRIES.

##### Books.

255/73. *Apprentice* (Preston).—We do not know of any "Arithmetic" specially got up for pharmaceutical students. Barnard Smith's "Arithmetic" (4s. 6d.), and the "Metric System" (3d.) of the same author, both published by Macmillan, are very suitable books for preparing for the Preliminary.



**Benbow's Dog Mixture.**

In reply to "Snarleyow" (254/17), a Kelso correspondent sends the following formula:—

Bals. sulphuris .. ..	3v.
Olei morrhuae .. ..	3v.
Misce et adde .. ..	
Ol. ricini ad .. ..	Oj.

*Dr. Hildwein* (Vienna).—We do not trace the publication of the formula you ask for.

253/257. *Craggs*.—The firm you name enjoys a very high reputation.

257/52. *Enquirer* (London).—German Yeast.—This is made by placing ordinary yeast or barm in bags made of strong and closely woven canvas, and subjecting it to slow but continuous pressure applied by means of a screw press. You will get full information on the subject in the lectures which are being delivered at present by Mr. Gordon Salamon, and which will be published in the *Journal of the Society of Arts*.

248/9. *Solubility*.—We have given hints regarding the manufacture of Soluble Essence of Lemon in back volumes. The last note (September 24, 1887, p. 406) is the best, as the process there given does not involve the use of alkali. It is as follows:—

Oil of lemon .. ..	10 oz.
Rectified spirit .. ..	6½ pints
Chloride of calcium .. ..	300 grains
Phosphate of soda (B.P.) .. ..	1½ oz.
Carbonate of soda .. ..	5ij.
Water .. ..	1 pint

Dissolve the oil in the spirit and add to it the chloride of calcium, dissolved in 5 oz. of the water, then dissolve the phosphate and carbonate of soda in 15 oz. of water, add to the spirit solution, shake well, and repeat agitation occasionally during four days, then filter.

The essence which you send appears to have been made by a process similar to this. We may add, however, that the best essence of lemon for aerated water is made by fractional distillation; that is, twice as much oil of lemon as any given volume of rectified spirit will take up is well shaken with that volume, the mixture allowed to separate, and the spirituous essence decanted for use. This essence has a much finer aroma than any "soluble" essence, and is sufficiently soluble for all practical purposes.

**255/32. L.—Curaçao Flavour.—**

Orange-peel .. ..	3 oz.
Cinnamon .. ..	1 drachm
Mace .. ..	¾ drachm
Brazil wood .. ..	1 oz.
Rectified spirit .. ..	1 pint

Macerate for ten days, press, and filter.

254/6. *Libra*.—(1.) Red putty is the material used for fixing glass tablets to windows. (2.) Kimpton, High Holborn, W.C.

251/47. *Tartar* wishes suggestions for a good effective method of glass tablets or other means of hiding the edges of window enclosures from the outside. For this purpose the tablets of ruby and blue glass now so much used will be most suitable. These can be got any size to order, but retain sizes with names of specialities upon them are stocked by the sundries houses. Tablets 3 inches to 4 inches deep would be most effective in the above case.

*Mortar and Pestle*.—Have you tried a sundries house for powder-boxes with divisions in them? We should think that a respectable house would get them made for you as cheap as they could be imported from America.

256/55. *Carbolic*.—The substance so much sold in Sheffield at present as a disinfectant to carry about the person is called **Albo-Carbon**, which is the name given by the Albo-Carbon Company to the naphthalene used for the reservoirs of their patent gas-jets. You will find the address of the company from their advertisement in this journal.

256/57. *P. Holmes*.—**Pigeons**.—The best treatment for the cure of canker in the mouth is to remove most of the excrescence with a sharpened piece of wood, then apply nitrate of silver, and subsequently dress with a paste composed of salicylic acid and glycerine.

257/64. *J. L.* sends some pills, of which he would like to know the composition; *A. B. C.* (243/42) sends some leaves, of which he would like to know the name; and *G. B.* (46/150) wishes to know the composition of a mixture. Neither of these correspondents gives any information whatever regarding the samples. Consequently any facts which we might ascertain on examination of their specimens would interest them only; whereas the principle upon which we reply to correspondents is that the information given may be useful to our readers generally. For that reason particulars, as far as they are known, should always accompany specimens.

245/14. *Inquisitive*.—We have examined the sample of Liquid Dentifrice which you send, and the following formula represents its composition as closely as it can be made out:—

	Oz.
Hard soap (B.P.) .. ..	1½
Tincture of myrrh .. ..	2
" " pellitory .. ..	½
Glycerine .. ..	2
Lavender water .. ..	4
Rectified spirit .. ..	6
Water .. ..	5

Macerate for four days and filter.

259/3. *Rochester* sends us a sample of Lime Cream which is sold at 3s. 6d. or 4s. a gallon, with a good profit, and he thinks that if made with sesame or nut oil it will scarcely allow 50 per cent. of oil. We find, however, that it does contain fully 50 per cent. of oil; the emulsifying agents are, apparently, lime water, soap, and borax, such as in the following formula:—

Cotton-seed oil .. ..	75 oz.
Nut oil .. ..	10 "
Borax .. ..	1 "
Powdered soap .. ..	1½ "
Saccharated solution of lime .. ..	2 "
Essence of lemon .. ..	2 drs.
Oil of citronella .. ..	10 mins.
Water to .. ..	1 gallon

Dissolve the soap and the borax in the water by the aid of heat, and add the solution of lime. Mix the oils together and emulsify in the ordinary way with the soap solution.

259/64. *R. H. Brown*.—The sample of Colic Mixture (veterinary) which you send contains an astringent, an opiate, camphor, aromatics, a little nitrous ether, and methylated spirit. It may, however, contain other ingredients, which cannot be detected owing to the complex nature of the mixture.

258/40. *J. L.* (Edinburgh) sends a sample of pills which, he states, are used for general debility, &c., and which appear to consist simply of powdered gentian and capsicum made into a mass with mucilage. Also a lotion-powder consisting of ammonium chloride, used for allaying swelling.

252/13. *Menthol* asks if there is a "settled formula" for what is popularly known as Sweetening Electuary (composed of sulphur, magnes. carb., treacle, &c.).



89/24. *Nemesis* and (249/57) *J. Carr & Co.*—**Transparent Hair Restorer.**—The following is a formula based upon an analysis of a French preparation:—

Nitrate of lead .. ..	1 drachm
Hyposulphite of soda .. ..	1 oz.
Solution of ammonia .. ..	$\frac{1}{2}$ "
Glycerine .. ..	$\frac{1}{2}$ "
Ess. white rose .. ..	1 drachm
Water, to .. ..	10 oz.

Dissolve the nitrate of lead in 2 oz. water, and the hyposulphite in 4 oz., and mix the solutions; then add the other ingredients and filter. Should be kept in dark-green or opal glass bottles.

248/23. *E. C. W.*—You can remove transparencies from windows by sponging them with a mixture of liquor potassæ and methylated spt. applied warm.

248/2. *Bass.*—(1) The powder for producing a heading on beer, &c., is a mixture of bicarbonate of soda, 4 parts, and powdered senega, 1 part. (2) The powder for rectifying sour beer is simply bicarbonate of soda, with a trace of cochineal.

248/15. *J. Jones.*—**Black Ink** (for rubber stamps).—Black wool dye and methylated spirit, of each 1 drachm; acetic acid, 10 drops; water, 5 drachms; glycerine, 2 drachms. Dissolve.

254/3. *Amerik.*—A similar preparation to your **Glycerine Lotion** may be made from the following formula:—

Glycerine .. ..	6 oz.
Orange-flower water .. ..	1 "
Rectified spirit .. ..	$\frac{1}{2}$ "
Otto of roses .. ..	3 drops
Liquid cochineal .. ..	q.s.
Water, to .. ..	12 oz.

M. S. A.

251/21. *A. E. Smith.*—We must refer you to the patent for the information required.

250/46. *N. Y. Z.*—The dark colouration of **Easton's Syrup** is due to oxidation of the ferrous phosphate, although it is probable that the organic constituents also undergo some change. It can be prevented by keeping the syrup in full bottles. The therapeutic properties of the syrup are not materially altered.

250/21. *Cymro.*—**Essence of Rennet**:—

One calf's rennet	
Syrup lactic acid .. ..	3j.
Glycerine .. ..	3j.
Sherry .. ..	3ij.
Water, to .. ..	℥xxxvj.

Chop the rennet small, and macerate with the salt (about 3 oz.), used to preserve it, in the liquids for ten days; then filter, and colour with a little liquid cochineal.

252/54. *Trajacanth* makes **Almond Paste** from the following formula, but finds that it dries up too quickly:—

Pulv. amyli .. ..	3ij.
Ol. amygd. dulc. .. ..	3j.
Ovi vitelli .. ..	j.
Aq. amygd. .. ..	3j.
Ol. amygd. essent. .. ..	gtt. liij.

M. S. A.

[Beat up the yolk of the egg with 6 drachms of almond water and emulsify the oil with the mixture, then add half of the starch, 3 drachms of glycerine, the perfume, and, lastly, the remainder of the starch. The paste prepared in this way is not so liable to harden.]

254/20. *J. Scott.*—You will find a list of books for a similar examination in our issue of November 26, page 689. Any intelligent bookseller will advise you as to what is generally used.

249/9. **Inexhaustible Smelling Salts.**—According to Allchin's process these are made by converting the ordinary sesquicarbonate of ammonia into neutral carbonate. Break in small pieces one part of volcanic-carbonate of ammonia, put it in an air-tight jar, and pour over it half a part of strong solution of ammonia, sp. gr. 880, perfumed to taste. Cover accurately, and leave for two or three weeks, or till it sets, stirring it with a spatula once or twice during the first week. A good perfume is made from the following:—

Ol. lavand. ang. .. ..	3iv.
Ess. moschi .. ..	3iv.
Ol. bergamott. .. ..	3ij.
Ol. earyoph. .. ..	3j.
Ol. cinnamomi .. ..	gtt. v.
Otto rose .. ..	gtt. x.

Misce.

*J. E. F.* writes:—(1) "On triturating iodine with olive oil the solution rapidly assumes a dark colour. What is the nature of the reaction?" It is due to combination of the iodine with the oleic acid of the olive oil. The halogens readily combine with the acids of the acrylic and oleic series, but not with those of the acetic and stearic. Upon this fact is based Hübl's iodine and Mills's bromine absorption processes for testing fixed oils. The olive oil iodine absorption percentage is 82.8, cottonseed and sesame oils are 106 per cent, and almond oil 98.4. (2) **Vaseline Oil.**—By this is doubtless meant **Paraffinum Liquidum**, such as that of the German Pharmacopœia. It is a heavy petroleum or shale oil, odourless and bloomless. Specific gravity about 0.840, and boiling-point not less than 360° C. A. B. Fleming & Co. (Lim.) make such an oil.

250/34. *Umbra.*—**Hypochlorite of Sulphur.**—Little is known of the composition of this substance further than what is stated by Attfield, viz. that it is a mixture of sulphur and chloride of sulphur. The method by which it is prepared (by passing chlorine over flowers of sulphur) corroborates this statement. Chloride of sulphur is a liquid body which readily decomposes in presence of water, hydrochloric acid and sulphurous anhydride being amongst the products. This decomposition generally takes place in the 1-oz. bottles, and as soon as the stoppers are loosened by a tap the contained gases force them out with a report as of an explosion. We have heard it asserted by chemists of the old school that the tap and the accompanying explosion are a proof that the substance is true hypochlorite; but this is mere conjecture. The formula of sulphur chloride is  $S_2Cl_2$ . The crude salt (containing excess of sulphur) is largely used for vulcanising caoutchouc. Sulphur tetrachloride,  $SCl_4$ , is supposed to exist, but decomposes as soon as it is freed.

255/16. *Tulip.*—**Sachet Perfumes.**—We printed a number of formulæ for these in our twenty-eighth volume, p. 90. From these we give two selections:—

#### NEW MOWN HAY SACHET.

Powd. orris .. ..	4 lbs.	Oil French geranium ..	120 min.
Ground Tonguin beans ..	$\frac{1}{2}$ "	Otto rose .. ..	30 "
" vanilla .. ..	$\frac{1}{2}$ "	Oil bergamot .. ..	60 "
Oil of absoud .. ..	10 min.	Extract musk .. ..	$1\frac{1}{2}$ "

#### POT POURRI.

Grd. lavender flowers ..	1 lb.	Ol. santal .. ..	60 min.
Powd. orris .. ..	1 "	" tinct. geranium ..	60 "
Grd. rose leaves .. ..	1 "	" bergamot .. ..	120 "
" cloves .. ..	$\frac{1}{2}$ "	" lemon .. ..	120 "
" cinnamon .. ..	$\frac{1}{2}$ "	Otto rose .. ..	10 "
" benzoin .. ..	$\frac{1}{2}$ "	Ground vanilla .. ..	3 oz.
" pimento .. ..	$\frac{1}{2}$ "	" musk pods .. ..	1 "
Table salt .. ..	$\frac{1}{2}$ "	Ess. ambergris .. ..	$\frac{1}{2}$ "
Ol. lavand. Ang. .. ..	60 min.		



57/19. *Saccharine*.—The formula for *Iron Tonic Bitters* referred to by "Anxious" was published in our issue of September 24, 1887. "Anxious" has found it advisable to modify the formula by using less sherry. The following is the formula as modified:—

Ferri et quinae cit.	..	..	..	3ij.
Acidi citrici	..	..	..	3iss.
Sacchari albi	..	..	..	3ij.
Tinctura aurantii	..	..	..	3j.
"    nucis vomice	..	..	..	3ij.
Vini Xerici	..	..	..	3iv.
Aqua ad	..	..	..	Oj.

"Anxious" retails a 6-oz. bottle (capped with a Hunt's bronze-paper cap) at 1s. 3d.

57/32. *Food*.—See last volume, page 304, for formula for milk food.

51/41. *S*.—(1) *Roche's Embrocation*.—There are various formulæ, but the following is the one which is generally adopted:—

Olive oil	..	..	..	..	3ij.
Oil of cloves	..	..	..	..	3j.
Oil of amber	..	..	..	..	3j.

Mix.

(2) *Liquid Boot-blackening*:—

Ivory black	..	..	..	..	8 oz.
Treacle	..	..	..	..	6 "
Sperm oil	..	..	..	..	10 drs.
Vinegar	..	..	..	..	24 oz.
Sulphuric acid	..	..	..	..	1 oz. (by weight)

Mix the first three ingredients and add sufficient vinegar to make a paste then add the sulphuric acid, stir well until effervescence ceases, and add the rest of the vinegar. Bottle while warm.

2/52. *H. J. H.*—The purification of *Peruvian Balsam* for *perfumery purposes* depends upon the fact that the odorous constituent (cinnamene) of the balsam is soluble in benzene, while the resinous constituents (styracin, &c.) are comparatively insoluble. Petroleum ether is preferable to benzene, as it dissolves only the cinnamene. The *modus operandi* is as follows:—Shake occasionally 1 part of the balsam with 3 parts of the solvent for an hour or two, then allow to settle and filter the benzene or petroleum ether portion. This on evaporation on a water-bath yields the cinnamene.

2/72. *D. F.*—*Violin Resin*.—Select the finest pieces of yellow resin free from woody matter, and melt by means of a gentle heat. Immediately before moulding mix with each pound of the melted resin 4 drachms of Canada balsam and 2 drachms of almond oil.

2/72. *Capillary*.—If the bald spots in the whiskers and on the upper lip are due to the destruction of the air-roots through disease there is nothing which will bring out a fresh crop of hair upon them. If hair exists on the spots at all its growth may be stimulated by the application of a solution of cantharidin, such as linimentum crinale; or the following pomade may be tried:—

Cantharidin	..	..	..	..	gr. j.
Iodoform	..	..	..	..	gr. v.
Hydrarg. iodid. rub.	..	..	..	..	gr. v.
Vaseline	..	..	..	..	3j.
Absolute alcohol	..	..	..	..	3j.
Oil of ylang-ylang	..	..	..	..	3 drops

Dissolve the oil and the cantharidin in the alcohol and add to the melted vaseline, with which afterwards incorporate the powders.

2/17. *Expectant*.—The best thing you can do for your headache is to buy a hollow-ground razor, a badger's-hair

shaving-brush, and a Pears' shaving stick. If you use these *secundum artem* every morning for a year or two the results will astonish you.

255/15. *Apprentice*.—We shall give full particulars of the matter soon.

251/54. *C. Clayton*.—You will find Carter's mills to be suitable for mixing blacking. For particulars see the "Art of Pharmacy."

251/43. *F. J. Richard*.—The most suitable stove for a dispensary laboratory is an ordinary kitchen range, which can be converted into an open fire. The oven of this you will find very suitable for drying precipitates, desiccating salts, &c. We do not advise you to get evaporating or boiling apparatus with which you are not accustomed to work; ordinary saucepans and enamelled-iron evaporating dishes are sufficient for making ointments, evaporating infusions, &c. The final operations in evaporating should only, however, be done over a carefully-regulated gas-flame, such as that of a Fletcher's furnace. You will get much information in "The Art of Pharmacy" (THE CHEMISTS' AND DRUGGISTS' DIARY, 1887) on these points, also regarding pill machinery.

251/55. *Cerevisine*.—All the information which you seek regarding the kola nut you will find in No. 3 of "Commercial Plants," published at 1s. by T. Christy & Co., Lime Street, E.C. (2) A good application for the skin after ringworm is an ointment made from the following recipe:—

Hydrarg. oxid. flav.	..	..	..	gr. xx.
Ac. carbol.	..	..	..	℥v.
Vaseline	..	..	..	3j.
Ol. bergamot	..	..	..	℥iij.

Mix.

Chrysarobin ointment should be used for abating the ringworm.

255/8. *Parmesan*.—The butter colouring which you send is a solution of the colouring matter of annatto in oil. We have repeatedly given particulars of how such colouring is made, the last time was January 7, page 30.

243/57. *S. B.*—The composition of the *Distemper Balls* cannot be accurately ascertained. Try a ball composed of asafetida, gr. iij.; pulv. antimonalis, gr. ij.; pulv. ipecac., gr. j.; pulv. glycyrrhiz., gr. iij.; pulv. tragacanth, gr. j.; treacle, q.s.

250/7. *J. Wharton*.—The *Brass Lacquer* appears to have the following composition:—

	Oz.
Sandarac	..
Oil of lavender	..
Rectified spirit	..

249/13. *Cocaine*.—*Furniture Varnish*.—The basis of the specimen received is common resin, black pitch, methylated spirit, a little magenta dye, and some oleo-resinous substance which we cannot name with certainty.

255/61. *Mortar and Pestle* and (252/13) *Menthol*.—To cement the handle of a pestle to the head, warm the latter thoroughly and half fill it with melted shellac; bind fine string in a loose spiral round the handle where it fits into the socket, and drive it well home. Leave it in position and under some pressure until quite cold.

254/4. *Anxious*.—The following is a good dinner pill:—Aloes and mastic, of each 36 gr.; ipecacuanha, 24 gr.; capsicum, gr. iv.; oil of caraway, 4 drops. Mass and divide into 24 pills.



## DISPENSING NOTES.

[The opinions of practical readers are invited on subjects discussed under this heading.]

## Low Prices.

157/13. T. B. I. sends us a copy of a prescription for an ointment, which is as follows:—

Extract. styracis .. .. .	3j.
Sulphur. sublimat. .. .. .	3j.
Axungie .. .. .	3ij.
Saponis mollis .. .. .	3ij.

Misce.

This was dispensed in Pisa for the small sum of 5*d.*, and "T. B. I." would like to know how Pisa pharmacists live. Does anyone know the secret?

## A Question of Colour.

SIR,—What appearance should the following prescription have? Would the order in which the ingredients are put together make any difference to the colour? Also, would it require a "shake the bottle" label? As made up by another dispenser the mixture was pale straw-colour, and quite clear. Mine was dark brown, slightly dull, owing, I think, to the succus taraxaci being rather low and leaving a little sediment.

Acid. nit. hydrochlor. dil. .. .. .	℥℥x.
Tinct. nucis vom. .. .. .	℥℥xxx.
Succi taraxaci .. .. .	3ij.
Sp. chloroformi .. .. .	3ij.
Infusi gent. co. ad .. .. .	3viij.

Ft. mist.

Sig.: A tablespoonful in a little water twice a day.

Yours faithfully,  
F. G. H. (257/16.)

[The colour of this mixture depends (1) upon the freshness of the acid, and (2) upon the action of the chloronitrous acid on the colouring-matters. If the acid is quite fresh, the mixture becomes almost colourless on standing, a sediment being formed; but this change takes place less rapidly if the circumstances are different. The mixture should be compounded as written, leaving the acid to the last, and a "shake" label attached.]

## Extracts in Oil.

SIR,—Would you kindly inform me as to how the following should be dispensed, viz.:—

Ext. opii aquos. .. .. .	5℥.
„ belladonnæ .. .. .	3iij.
Camphoræ .. .. .	3iij.
Ol. olivæ .. .. .	3iss.
„ terebinth. .. .. .	3ss.

M.

CAMPHOR. (256/49.)

[Dissolve the camphor in the oil of turpentine and  $\frac{1}{2}$  oz. of the olive oil. Rub down the extracts with 2 drachms of boiling water, and incorporate 1 oz. of olive oil (also hot) with the resulting soft paste, then add the rest of the ingredients.]

## Ferri Sulph. Exsic. in Pilulâ.

SIR,—How should the following prescription for pills be dispensed without making them an unnatural size?

Ferri sulph. ex... .. .	gr. v.
Ext. bellad. .. .. .	gr. $\frac{1}{2}$
Ft. pilula.	

Yours respectfully,  
LIONEL COOPER.

[Rub both ingredients well together along with  $\frac{1}{2}$  grain of powdered tragacanth, and make into a mass with Price's glycerine, which has not been much exposed to the air.]

## LEGAL QUERIES.

15/258. *Chemists*.—Vermin-killers which contain an scheduled poison can only be sold by registered chemist Phosphorus, however, is not a scheduled poison, and compounds of it may therefore be sold by other tradesmen. There is no restriction on the sale of oil of vitriol or carbolic acid. These are not legal poisons.

61/258. *Hyoscyamus*.—If you care to retain your right in the title you can probably do so by giving notice of opposition to the application which has been made. But before taking formal steps you might communicate with the person who is registering a mark similar to yours, and with the Comptroller. If you let the registration go on you will probably find yourself shut out from the right to use the label.

45/251. *S. C. T.*—If you will read the paragraph in the DIARY more carefully you will see that the addition of soluble oxalates to the poisons schedule was only recommended by the Pharmaceutical Council, and was not approved by the Privy Council.

57/257. *W. T.*—A wine that can only be sold by licensed wine dealers may not be sold by unlicensed dealers by putting a patent-medicine stamp on it.

38/259. *Enema* sends us two labels, asking "whether, in your opinion, the inclosed labels infringe the rights of any other firm." It must be obvious that we cannot answer such an inquiry. We cannot undertake to examine the trade-mark register: and, apart from that, these labels may, for aught we know, infringe someone's common-law rights. Probably our correspondent has in view especially the Hop Bitters Company and the St. Jacob's Oil Company. Now, apart from the fact that both these companies are putting forth claims which are still before the Courts, and on which, therefore, we are not allowed to express any opinion, we may remark that infringement may be established by other evidence than by that of the label alone. The style of get-up, or the circumstances attending the sale of any bottle, might be used to prove infringement.

64/251. *J. Vaughan* writes:—"Income-tax.—Under Schedule A the landlord is bound to allow from the rent the sum demanded. If the amount of assessment is higher than the rent, can the landlord decline to pay more than the portion which falls on the rent he receives?" Yes; he can only be required to pay on the amount actually received by him. See 16 & 17 Vict. chap. 34, sec. 40.

49/259. *Mortar and Pestle* calls attention to a formula given last week for arsenical soap, and suggests that we should make it clear that according to the Arsenic Act the "arsenic" employed in the preparation should be mixed with soot or indigo. We do not so read the Act. The word arsenic in the Act "includes arsenious acid and the arsenites, arsenic acid and the arseniates, and all other colourless poisonous preparations of arsenic." The soap made from the formula we published would not be colourless; therefore we do not think it would come within the definition of the Act.

3/260. *C. E. Tritton*.—We cannot publish your statement, as it would be libellous to do so. The case is clearly one for a county court.

9/260. *Justitia*.—There is not now any association which looks after trade-marks in the interests of chemists and druggists. The Birmingham Trade Association did so at one time, but they were obliged to discontinue their action through insufficient funds. The "cough elixir" trade-mark to which you refer (quoted last week) need not alarm chemists. You will see that the proposed mark is those words in conjunction with the signature of the applicant. The signature is the essential part of the mark.



## Chemists will do well for themselves

In ordering a supply of ANTIPYRINE in CRYSTALS, POWDER, and TABLOIDS and showing same to their Medical men, giving them at the same time a copy of the Therapeutic Leaflet on this Drug, which we shall be happy to supply for distribution.

New and useful properties are daily being discovered for Antipyrine. Its latest field of usefulness has been found in the Prevention and Cure of **SEA SICKNESS**.

When going on board 15 grains (3 Tabloids) should be taken, and, if no unpleasant effects ensue, the dose may be repeated, which may be again repeated if signs of Sea Sickness appear.

*Note the following Correspondence in the London "TIMES"—*

*A NEW REMEDY FOR SEA-SICKNESS.*

TO THE EDITOR OF "THE TIMES."

SIR,—It may interest many of your readers to know that in the new artificial alkaloid, antipyrine, discovered in 1883 by Knorr, of Erlangen, a potent remedy for sea sickness has been found. The source of this antipyrine is that also of the aniline colours—viz., aniline—and thus, strange to say, this medicament is manufactured in the works of a large German firm producing alkalies, acids, and coal-tar colours. Antipyrine may then be considered as a coal-tar product. According to the *Compt. rend.* 1887, 105, 947, E. Dupuy administered antipyrine during the last three days before embarking and the first three days of an ocean voyage, in doses of 3 grammes per day. He states that none of the persons thus treated suffered from sea-sickness during the voyage across the Atlantic Ocean—a sufficiently severe test, certainly. Again, another and independent authority, M. Ossian-Bonnet (*Compt. rend.* 1887, 105, 1,028), states that antipyrine acts excellently as a remedy against sea-sickness. In most cases a dose of  $1\frac{1}{2}$  gramme is sufficient, the effect being manifested in about ten minutes. In other cases the dose must be repeated. M. Ossian-Bonnet never required to use more than 3 grammes, in two doses, in order to completely remove the evil within an hour. In some cases, which were very rare, when the sick person, in consequence of continued vomiting, could not take the remedy, a subcutaneous injection of 1 gramme of antipyrine proved sufficient to remove the sea-sickness.

I am, yours, &c.,

WATSON SMITH, F.C.S., F.I.C., Lecturer in Chemical Technology in the Owens College, and Lecturer of the Victoria University, &c.

PRICES.—Antipyrine, 3/6 per oz., less usual discount; special terms for large quantities. Antipyrine Tabloids, 5 grs. each, in bottles of 25, 28/ per dozen; in bottles of 100, 80/ per dozen. Retail prices, 3/ and 9/ each.

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On account of the **great strength cheaper** to use than tea.

For breakfast, lunch or supper. For rich and poor.

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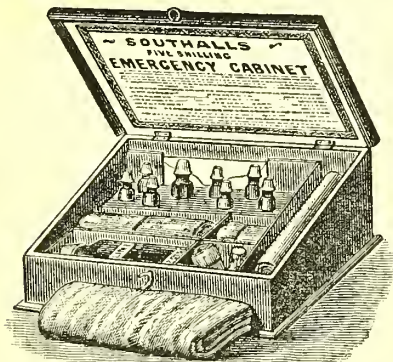
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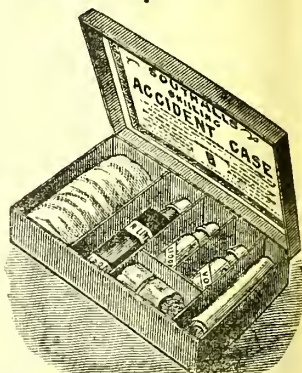


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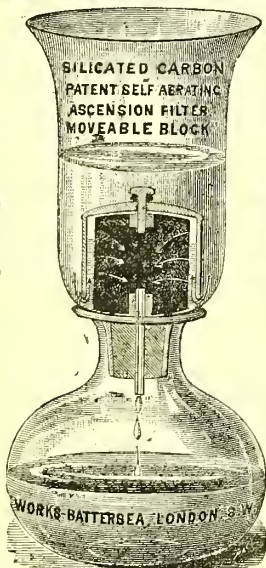
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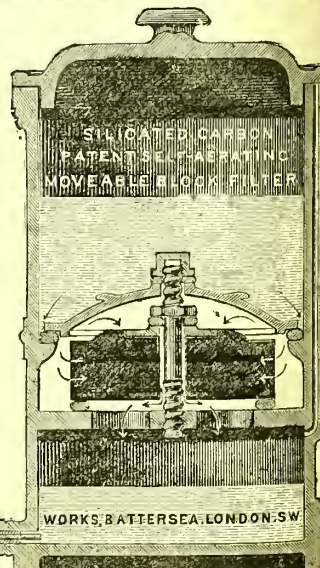
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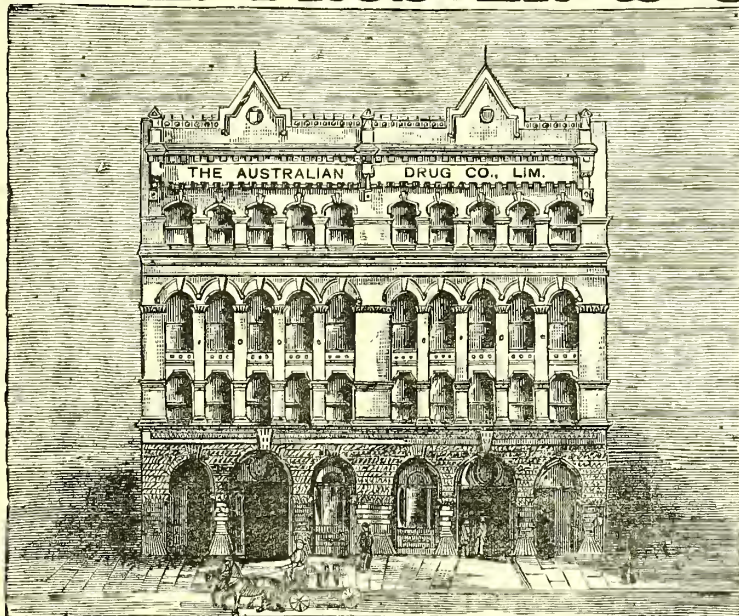
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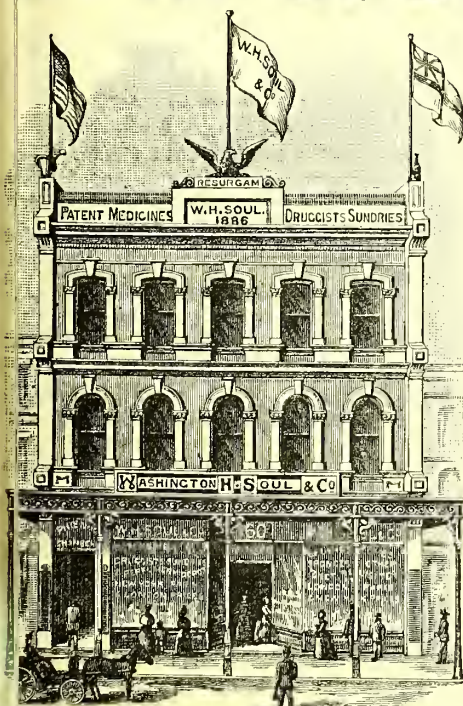
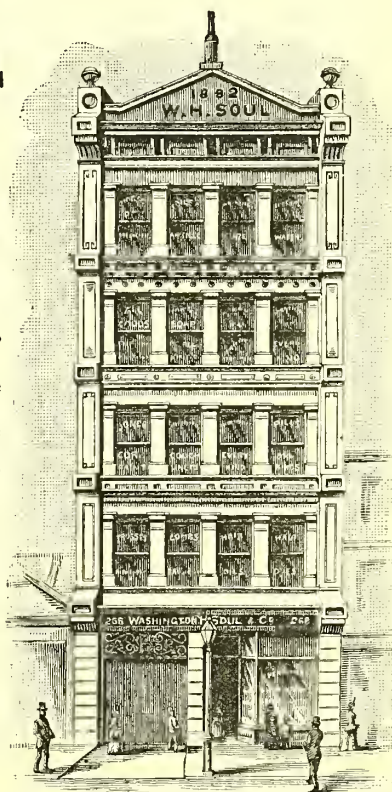
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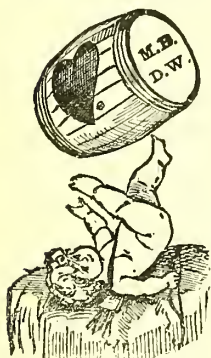
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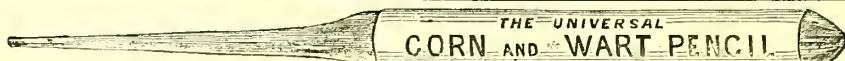
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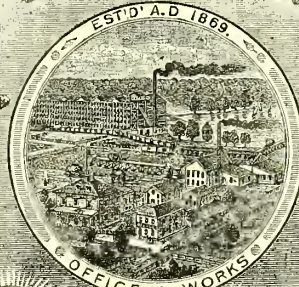
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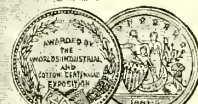
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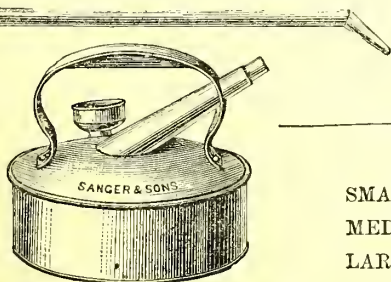
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TERMS TO THE TRADE AND REVISED LIST OF FORMULAS MAILED FREE ON APPLICATION  
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## WYLEYS' GELATINE COATED OVAL PILLS.

The only Gelatine Coated Oval Pills of ENGLISH MANUFACTURE in the Market. Special List on application.

Gross Botts.		Gross Botts.		Gross Botts.	
Bismuth. Pepsin. Co.		Ferri Hypophosph. Comp.		Phosphorus, $\frac{1}{30}$ Ext. Nuc.	
(Wyleys'), B. Bismuth, Nit., 2		(Wyleys'). Each pill represents		Vom., $\frac{1}{4}$ gr. ...	2/-
g; Pepsin Porci, 1 gr.; Ferr.		1 fluid drachm of Syrup of the		Podophyllin Resin, $\frac{1}{3}$ gr.; Pil.	
Lact., 1 gr.; Strychnin, $\frac{1}{24}$ gr.	3/6	Hypophosphites... ..	2/6	Rhei Co., 4 gr. ...	2/6
Calci Sulphid. $\frac{1}{10}$ , $\frac{1}{8}$ , $\frac{1}{4}$ , $\frac{1}{2}$ , 1 gr.	1/8	Ferri Quininæ et Strych-		Potass. Permang., 1 gr., 2 gr.	2/-
Calara Sagrada (Ext.), 2 gr.	2/-	ninæ Phosph. (Wyleys'), re-		Tie Douleureux	
Ergotin. Comp.		presenting Easton's Syrup ...	3/-	B. Ferri Redact., 2 gr.; Chino-	
Ergotin, 1 gr.; Ferri Sulph.		Hydrarg. et Arsenic. Iodid.		quinæ 1 gr.; Ext. Colchici Acet.,	
Isic., 1 gr.; Ext. Hellebor.,		(Wyleys'). Each pill equiva-		1 gr.; Ext. Belladon., $\frac{1}{4}$ gr. ...	3/-
1 gr.; Ol. Sabinæ $\frac{1}{2}$ m.; Ext.		lent to 5 minims of Donovan's			
Eses Soc., 1 gr....	3/-	Solution ... ..	1/8		

**WYLEYS & CO., COVENTRY.**

LONDON ADDRESS—18 BURY STREET, ST. MARY AXE, E.C.

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## DR. JOHN HOOPER'S PILLS,



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**DOG MEDICINES** for the Cure of Distemper, Worms, Mange, Eczema, Ear Canker, Rheumatism, and the various other Canine Diseases. Full List and Pamphlet on Canine Diseases, post free.

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TERMS OF HOUSE.

## MALDON CRYSTAL SEA SALT. SALT

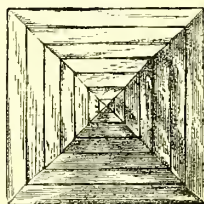
FOR BATHS.  
A PERFECTLY PURE SALT.

*Strongly recommended by the medical profession.*

### DIRECTIONS FOR USE.

An ordinary teacup full to each Gallon of Water; dissolves more readily than any other Salt, and

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FOR Healing Wounds in all Animals. FOR Sore Shoulders & Cracked Heels in Horses. FOR Sore Teats and Swollen Udders in Cows. FOR Anointing in Bad Lambing and Calving. FOR Every Horsekeeper, Farmer, & Shepherd.	2/6 Per Bottle
<b>Purified DRIFFIELD OILS</b>	

DAY & SONS'	10/- PER HALF DOZ. 19/- PER DOZ.
FOR Fret Colic or Gripes in Horses. FOR Debility and Shivering Fits in Horses. FOR Hoven or Blown Cattle and Sheep. FOR Scour or Flux in Calves and Lambs. FOR Chills, Debility & Colic in all Animals.	
<b>BLACK DRINK</b>	

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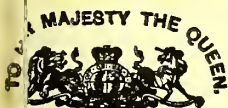
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For assuaging pain and inflammation in all wounds, saddle galls, strains,  
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Celebrated for inflammatory disorders; such as fevers, pleurisy, foot-and-  
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Unmatched for colic or gripes and debility in horses, for colds, chills,  
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Warm stomachic in severe diarrhoea or flux, by way of change of the  
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Invaluable for ill-conditioned horses and after hard hunting and driving.  
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Excellent for confined bowels and for worms in horses, but a bran mash  
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Invaluable for husk, hoose, or cough in cattle, calves, and sheep; for  
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# PURE SPIRITS OF WINE.

60 o.p., 20/3 per gall.; 56 o.p., 19/9 per gall.

1/ per Gall. Discount for Cash with order.

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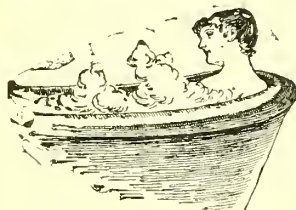
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Flower Pomades. Perfumed Oils. Flower Extracts.  
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By using this new and  
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SOFTENS the WATER  
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**BEAUTIFIES**  
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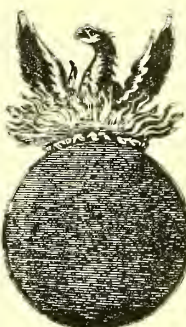
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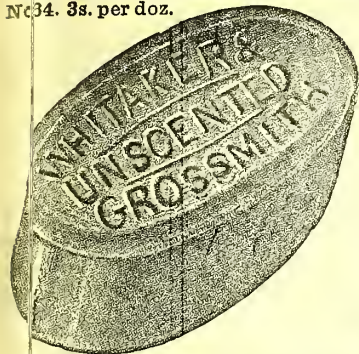
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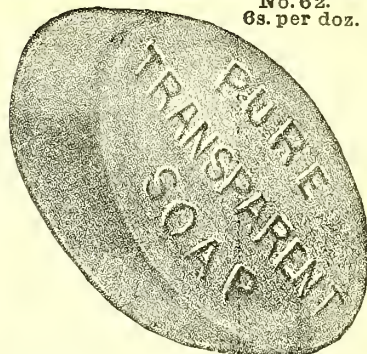


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Registered. No. 25,555.  
Purifies the air and generates  
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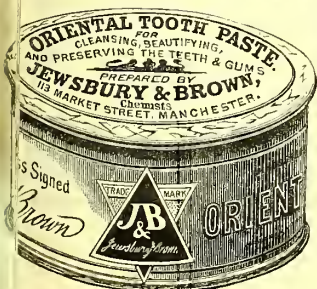
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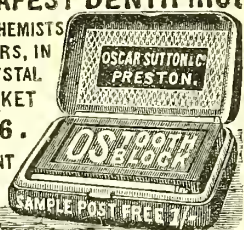
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SOLD BY ALL CHEMISTS  
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ELEGANT CRYSTAL  
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PRICE 2/6.

ALSO IN PATENT  
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**OS Tooth Blocks** can be had through all the leading Wholesale Houses throughout the world. No. 0, loose, without boxes; No. 1, in patent metallic boxes; No 2, in crystal caskets.

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The superior quality of NEWSOME'S ABSORBENT SURGEONS' LINT is universally admitted.

The V.B. Quality is quite pure and of great superficial area and exquisite softness.

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Specially Bleached and Grey Carded Cotton Wools, Absorbent and Bleached and Grey Waddings; also Sheet Waddings, Tow, &c.

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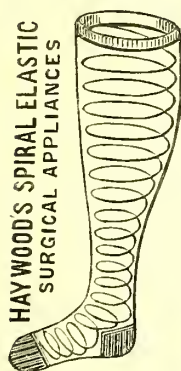
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**STOCKINGS, SOCKS, LEGGINGS, &c.,**  
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**J. H. HAYWOOD, CASTLE GATE, NOTTINGHAM.**



SEE INDEX TO ADVERTISEMENTS—Pages 19-21.



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			Containing	30	36	48
Casura Sagrada (5 mins.), in round boxes	Per dozen	7/-	In oval screw-cap bottles	—	—	—
Casor Oil, in square boxes	...	5/-	Ditto ditto	5/6	—	8/-
Cod Liver Oil, in square boxes	...	7/-	Ditto ditto	—	8/-	—
Copba, without Name, in oval boxes	...	4/9	Ditto ditto	5/6	—	8/-
Copba, with or without Name, best, in oval boxes	...	5/9	Ditto ditto	6/6	—	9/-
Copba, Flexible, in oval boxes	...	6/-	Ditto ditto	6/9	—	9/6
Copba, Flexible, larger, in oval boxes	...	8/-	Ditto ditto	—	10/-	—
Copba and Cubeb, in square boxes	...	9/-	Ditto ditto	—	11/-	—
Copba, Cubeb, and Buchu, in oval boxes	...	8/-	Ditto ditto	—	10/-	—
Copba, Cubeb, and Sandal-wood Oil, Flexible, in oval boxes...	...	17/-	Ditto ditto	17/-	—	25/-
Oil Male Fern (18 drops), in square boxes	...	17/-	Ditto ditto	—	18/-	—
Sand-wood Oil, Flexible, English, in round boxes	...	26/-	Ditto ditto	—	30/-	—
Sand-wood Oil, Flexible, Foreign, in round boxes	...	20/-	Ditto ditto	—	23/-	—
Tar Norwegian, in square boxes...	...	6/-	Ditto ditto	—	7/-	—
Terrene, pure (10 drops), in round boxes	...	12/-	Ditto ditto	13/-	—	20/-
Turpentine, in square boxes	...	6/-	Ditto ditto	—	7/-	—

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S. MAW, SON & THOMPSON, LONDON.

## MAW'S MENTHOL CONES

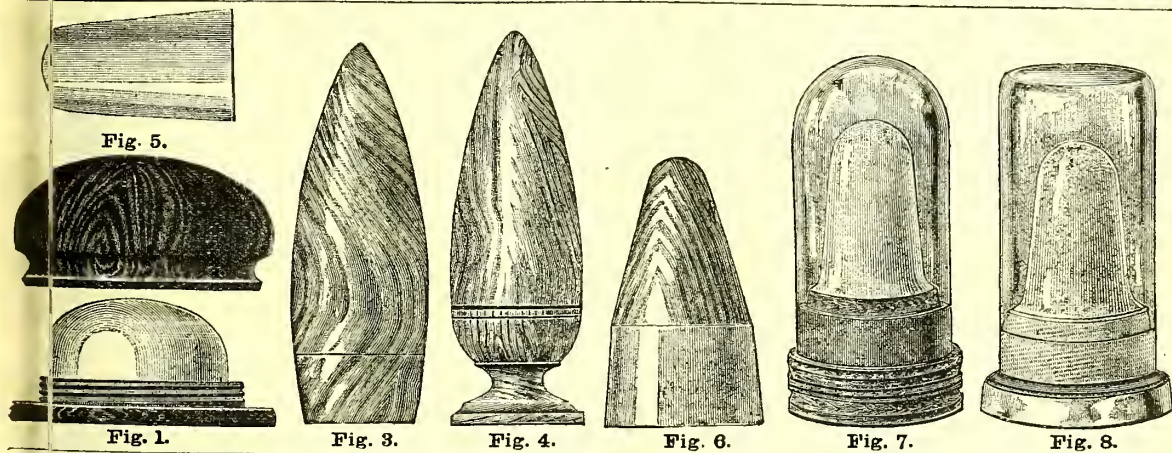


Fig. 1.	In Ebony Cases, flat for the pocket	...	...	...	...	Per doz.	6/-
Fig. 2.	In Boxwood Cases, per doz., 3/- and 4/-; in Vegetable Ivory	...	...	...	...	"	6/-
Fig. 3.	In Boxwood Cases, per doz., 2/8 and 4/-; in Vegetable Ivory	...	...	...	...	"	4/- and 6/-
Fig. 4.	In White Opaque Glass Jars with Red Celluloid Caps	...	...	...	...	"	2/6 and 3/6
Fig. 5.	Mounted, in Stopped Bottles	...	...	...	...	"	6/6
Fig. 6.	Mounted on Vegetable Ivory, in Glass Bottles, Screw Metal Caps	...	...	...	...	"	4/6
Fig. 7.	On Boxwood Mounts, Glass Covers	...	...	...	...	"	3/6 and 5/9
Fig. 8.	On new Glass Mounts, Glass Covers	...	...	...	...	Per doz.	3/6, 4/-, 5/6, and 8/-
Fig. 9.	On Glass Mounts with Glass Covers	...	...	...	...	Per doz.	4/6 and 6/-

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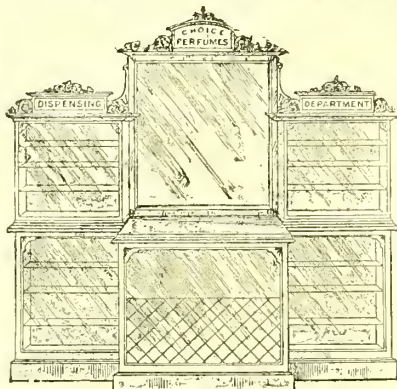
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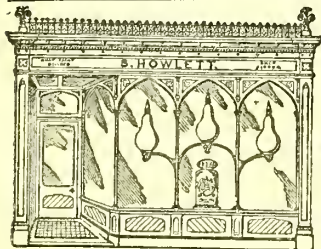


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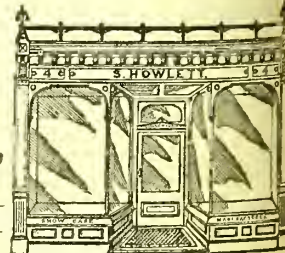
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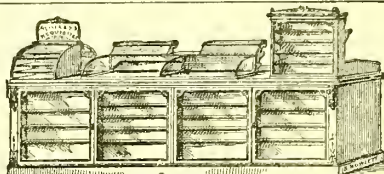
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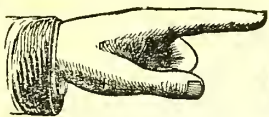
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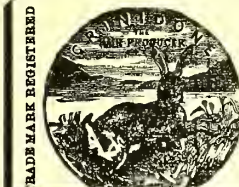
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FOR GOUT, RHEUMATISM, SORE THROAT, CHEST AFFECTIONS.

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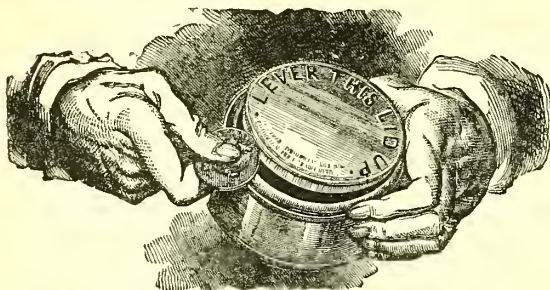


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(GRIFFIN'S PATENT).

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IN THE HIGH COURT OF JUSTICE, CHANCERY DIVISION.

GRIFFIN v. NOAKES. 1887. G. No. 1,088.

GRIFFIN v. FRAVER. 1887. G. No. 1087.

As we understand from some of our Clients that, from false representations made, an impression prevails that the proceedings in these actions have failed, we beg to inform the public that such is not the fact, and that the proceedings are being carried on as fast as possible, in the Chancery Division of the Court, to restrain the Defendants from selling or making Tins similar to those manufactured by us, and from infringing our Patents. The Defendants, pending the proceedings, have been ordered by the Court to keep an account of all sales made by them. Our Solicitors, Messrs. CLARKSON, GREENWELL & Co., have had instructions from us to proceed against all persons so offending.

FOR THE SELF-OPENING TIN BOX COMPANY, G. FEATHERSTONE GRIFFIN, Manager.

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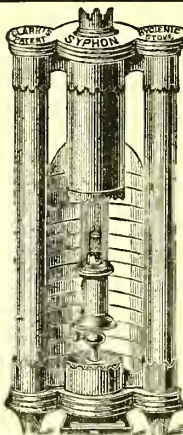
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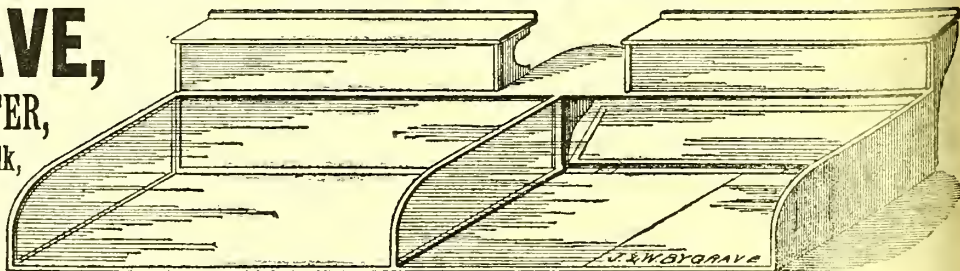
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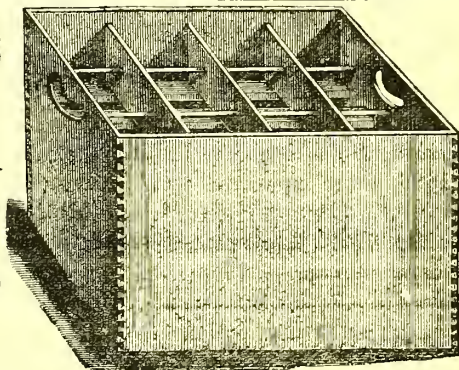
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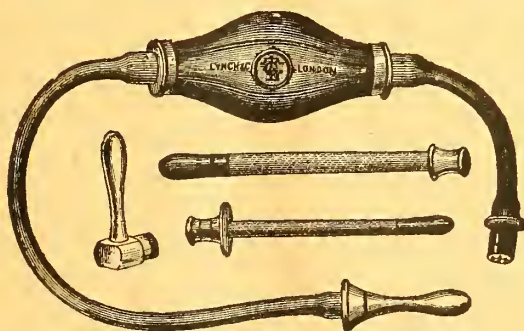


SYDNEY, 1879.

# FAMILY ENEMA

(Patent 13,816, dated 12th October, 1887).

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with Velvet,  
per dozen,  
**49/-**



In  
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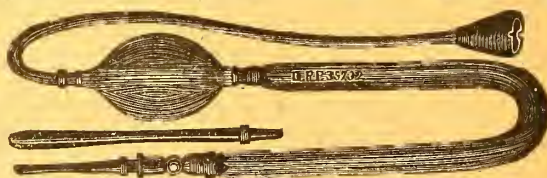
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The business conducted by Messrs. ORRIDGE & Co. has been known as a Transfer Agency since the year 1846, and is well known to all the leading firms in the Trade. VENDORS have the advantage of obtaining an opinion on value derived from extensive experience, and are in most cases enabled to avoid an infinity of trouble by making a selection from a list of applicants for purchase, with the view of submitting confidential particulars to those who are most likely to possess business qualifications and adequate means for investment. PURCHASERS who desire early information regarding profitable opportunities for entering business will greatly facilitate their object by describing clearly the class of connection they wish to obtain.

1.—£100.—LONDON.—Good-class district; Retail and Dispensing, of good class, held by the same family for many years; returns nearly £1,000; shop handsomely fitted, and good stock; convenient house, &c.; about £10 required.

2.—£60.—LONDON, N.—Good locality; Retail and Dispensing Business; returns last year £630; well-fitted shop and good stock; position excellent; about £600 required.

3.—£90.—LONDON, S.E.—Good-class Business; Dispensing and Retail, with some Prescribing; returns over £900 yearly; *net profits* over £400; comfortable house; rent low, held on lease; anyone with £700 will be treated with.

4.—£50.—LONDON SUBURB, S.E.—Light Retail and Dispensing; turns £500 yearly; good remunerative business; well-fitted shop, comfortable house, and small garden; price about one year's returns.

5.—£70.—LONDON, S.E.—Good-class Dispensing and Retail; established many years; wants the attention of a principal for development; returns £800; good house and garden; price £700.

6.—£60.—LONDON, W.—Dispensing and General Retail; old-established Business; returns £650 yearly; good situation, Post Office attached; good-sized house; rent moderate; price required is about the value of stock and fixtures.

7.—£25.—WALES, ON BANKS OF THE SEVERN.—In a very pretty locality, a good-class Business, capable of great extension; present returns about £250, entirely from Drug trade; shop well fitted, and commodious house; Welsh not necessary; business must be sold, in consequence of illness; any reasonable offer will be considered.

8.—£500.—NORTH OF ENGLAND.—Large and flourishing seaport; an old-established Business; present returns £500 yearly, from Retail and Dispensing; capital opening for heavy trade; value of stock and fixtures only required.

9.—£1,350.—LINCOLNSHIRE.—Good town; old established Business; capably situate in main street; returns nearly £1,350 from profitable good-class business; valuation only required.

10.—£1,350.—SUSSEX.—Good town; Retail and Dispensing Business of good class; returns from profitable trade about £1,350; large handsome double-fronted shop; about £1,100 required, or valuation; terms can be arranged.

11.—£1,000.—KENT.—Good business locality; profitable Dispensing and Retail, with good Proprietary Articles attached, for which there is a good demand; average nearly £1,000; large and convenient premises; about £800 required.

12.—£2,000.—MIDLANDS.—Large town; good old-established Business; Retail and Dispensing, with small Surgeon's Wholesale attached; returns over £2,000, with good profits; satisfactory reasons for sale; price £1,600, part can be paid by instalments; references given and required.

13.—£2,000.—SOUTH OF ENGLAND.—Good old-established Mixed Business, with small Wholesale; returns nearly £2,000; *profits above the average*; capital position; business will bear the fullest investigation; about £1,450 required.

14.—£800.—NORTH OF ENGLAND.—Death vacancy; in a good manufacturing town; present returns about £800; can easily be doubled; capital premises and good-sized house; any reasonable offer will be accepted.

N.B.—NO CHARGE TO PURCHASERS.

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Messrs. ORRIDGE & Co. invite communications from COLONIAL and FOREIGN firms, where business of a confidential nature requires the especial attention of a London agent.

ORRIDGE & CO., 32 Ludgate Hill, LONDON, E.C.



**PARSON C. BAKER,****8 STOCKBRIDGE TERRACE, S.W.**

(CLOSE TO VICTORIA STATION),

*Twenty-five years' experience, Transfer, Wholesale and Retail.*

**F**OR disposal—(1) Light Retail, &c., in excellent position. Northern county town; returns £1,000; price, valuation of stock and fixtures. (2) In principal thoroughfare very large Midland town; established 20 years; returns £850; price, valuation of stock and fixtures. (3) Rapidly-increasing Business in fast improving seaside resort, Cumberland; returns—1886 £450, 1887 £600; good house and stable; rent £30; owner going abroad. (4) Suburb of Portsmouth; returns £420; good profits and opening for Dentistry; corner shop, good house and stable; rent £40, on lease; price £280, or reasonable offer. (5) Very profitable old-established Business in Camberwell; returns £400; net profit over £200; rent £28. Several other businesses on list. Inquiry from purchasers is invited.

**W**ANTED to purchase, good Country Trade, returning from £700 to £1,000, and London or Suburban Retail returning from £1,200 to £1,500.

**THOS. TOMLINSON & SON,**  
**CHEMISTS AND DRUGGISTS' VALUERS,**  
**9 New Cannon St., MANCHESTER,**

Have the most experienced Practice in the Profession.

INVENTORIES AND OPEN VALUATIONS FOR  
STOCKTAKING OR OTHERWISE.**TO BE SOLD OR LET.***3s. 6d. for fifty words; 6d. for every 10 words beyond.*

**T**O Chemists and Druggists.—For Sale, or to Let, two old-established corner Shops and premises, well fitted up; owner retiring. Address, 659, Advertiser Office, Leicester.

**BUSINESS WANTED.***3s. 6d. for fifty words; 6d. for every 10 words beyond.*

**W**ANTED, a good-class Business, where about £1,000 can be advantageously invested; must bear strict investigation. Address, "Cash," Dormington House, Lausanne Road, Hornsey, Middlesex.

**BUSINESSES FOR DISPOSAL.***3s. 6d. for fifty words; 6d. for every 10 words beyond.*

**T**O Chemists and Druggists.—Immediately, an old-established Retail Business in a market town in Norfolk; returns over £800, all light retail; most satisfactory reasons for disposal; price £650. Apply to Smith & Sons, Druggists' Valuers and Transfer Agents, Norwich.

**A** BARGAIN.—For immediate disposal, an old-established Retail and Dispensing Business, in a leading Cheshire town; returns £800 per annum (under management); price £400; satisfactory reasons for disposal. Apply, "Cheshire," care of 45 Farringdon Road, London.

**A**USTRALIAN Business; best position in Melbourne; turnover £2,700, increasing; first-class Chemist's Business, centre of city; handsome shop; lease about 5 years, for which the present proprietor refused £1,500; last year's returns about £2,700, chiefly cash; possibility of further increase unlimited; present owner retiring from business; stores not allowed to sell medicines in Melbourne; every facility allowed for investigation; English qualifications accepted by Victorian Pharmacy Board; price £2,750. References and particulars with Grimwade, Ridley & Co., Mildmay Chambers, 82 Bishopsgate Street, London.

**T**O be disposed of, a Mixed Business with Wholesale, in the centre of the Staffordshire Potter suit non-qualified man well; well established; proprietor tiring. Apply for particulars, G. Hulme, Chemist, Fen Staffordshire.

**B**RADFORD (in one of the best suburbs).—A Light Retail and Drug Business; old-established; the returns have averaged £400 per annum during the past 8 years; price £350, or valuation. For further particulars apply, James Savage, Chemist, Manchester Road, Bradford.

**F**IRST-CLASS old-established Retail and Dispensing Business in principal thoroughfare of Kingsland, Dalston Junction; established 35 years; returns about £1 per annum; net profit £450; shop handsomely fitted and stocked; price £750. Apply, R., Messrs. Heaton, Squib Francis, 5 Coleman Street, London, E.C.

**W**ANTED, an offer for old-established Chemical Business, in large market town; well-fitted shop; average house and rent; two chemists; population 8,000, no cutting or stores; rare chance for improving; splendid old connection. Cash purchasers only need apply "Alpha," 42 Castle Street, Shrewsbury. No agents answer.

**A**INTREE.—For disposal, that well-fitted Dispensing and Light Retail Business, situate 11 Walton V. Aintree; built for the business, and good house; as owner wishes to retire, will be sold either with or without stock and payment made according to arrangement agreed. Apply, Mr. Heaton, Chemist, 14 Exchange Street, E. Liverpool.

**P**LYMOUTH.—Old-established General Retail Business (75 years), main thoroughfare, centre of town and close to market; capable of extension by personal attention; now under management; an immediate cash business; liberally treated; good opportunity for small capital; leased premises. Apply, Maitland, Chemist, Stonehouse, Devon.

**G**LOUCESTERSHIRE.—In a small market town a good-class Retail, Dispensing, and Prescribing business returning £700 at full prices; convenient 9-roomed house; rent only £30; price £500; an opportunity for anyone wanting a genuine country business; strictest investigation allowed. Inquire of "Buchu," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**C**HESHIRE.—A genuine Light Retail Drug Business at Frodsham; good profits; now under management; could be doubled by principal; increasing neighbourhood and healthy situation; making great improvements house; rent £25; price £200; strict investigation and inspection invited. Apply, Geo. Marshall, Chemist and Dentist, Runcorn.

**C**HEMIST and Dental Surgeon's Business; £200, first reasonable offer; stock and fixtures worth more than the price asked; handsomely fitted shop; grand position established 35 years at 9 Brushfield Street, Bishopsgate Street, City; valuable lease, nice house; rent only £120; worth £75; splendid investment. Batchelor, Auctioneer, Dalston Junction. Stamp.

**£450.**—Good-class Family Dispensing and Light Retail (unopposed) in a charming spot about 30 miles from London; excellent modern house, and good walled-in garden; this is worth the attention of anyone wishing light occupation combined with a comfortable home and certain income. Taylor, 79 Queen Street, Cheapside, London.

**C**HEMIST'S Business, London, W., with a good opening for a large medical practice; established 25 years; receipts over £900; profits between £500 and £600 per year; good introduction given; price £600. Chemist's Business, London, N.; established 1828; receipts between £500 and £600; price, a year's income. Apply to Wm. Hornbrook, 17 Bloomshury Street, Oxford Street, W.C.



**AERATED-WATER** Business for disposal; old-established; situated in the centre of a thickly populated district in Yorkshire; proprietor going abroad; genuine concern capable of development; fitted throughout with the most modern machinery and appliances; patent and cork bores, vans, horses, &c.; books open for inspection. For full particulars apply, T. H. Fitzsimmons, Port Street, Manchester.

**TO Chemists and Druggists.**—To be disposed of, a first-class Retail and Dispensing Business near Birkenhead, established over 12 years; shop well fitted up; returns about 600 per annum; a capital opportunity for an energetic person. For further particulars apply to John Thompson, Wholesale Druggist, 58 Hanover Street, Liverpool; or to Messrs. Mahon & Howorth, Chartered Accountants, 26 North John Street, Liverpool.

**EXCEPTIONAL** opportunity. — Old-established genuine Chemist's Branch under management; good market town near Birmingham; returns £400; principal could be on double; no patents, and feeble opposition; large shop, well fitted and stocked; good house; opening which seldom presents itself to principal or beginner; price £250; half cash, balance instalments. "Drugs," care of Wyleys & Co., Centry.

**LANSHIRE.**—To be disposed of at once, the business of a Medical Botanist and Specialist, together with surgical and Magnetic Appliances; shop nicely fitted as Christ's; in leading thoroughfare of a populous town, centre of cotton district; average returns, £230; profits unusually large; convenient house, rent £35; established 3½ years at lowest price, £75, being half a year's profit; ill-health cause of disposal. Apply, 164/13, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.

## SITUATIONS OPEN.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

**ASSISTANT**, qualified as Dispenser; applicants enclose carte de visite and full particulars. Everett, Chester, Colchester.

**AN improver or Junior**, immediately; outdoors; state full particulars and salary required. R. Wood, Pharmaceutical Chemist, Windsor.

**DISPENSER**; qualified; good experience; capable of taking charge of the department. J. S., 135 Queen's Road, Brighton.

**WANTED**, a first-class Representative, on commission, calling upon Chemists and Druggists, to take the whole of England, Scotland, and Ireland for a well-known article. A. B., Sydney House, Boston, Lincolnshire.

**PILL-MAKER** wanted.—Good salary to a man thoroughly experienced in making and pearl-coating pill-boiling machinery. Apply to Lorimer & Co., Britannia Row, London, N.

**STEADY JUNIOR**, who has been accustomed to a Mixed Country Trade; indoors. Apply, stating full particulars, to W. Merry, Market Place, Ilkeston, near Nottingham.

**WANTED**, immediately, a Manager to work up a Branch; married preferred; salary and commission, with house, &c. Apply, stating particulars, to "Minor," care of Messrs. Sons & Co., 56 Hanover Street, Liverpool.

**WANTED**, a Junior Assistant; outdoors; with a knowledge of bookkeeping; must be a good writer able to assist in the retail when required. Address, in ordinary handwriting, stating age, terms, &c., to Ford, 70 Kensington Park Road, S.E.

**WANTED**, Chemist's Senior Assistant, competent and willing to take charge of dispensing business in country town, North of Scotland; highest references required. Apply, giving name and stating salary, to 162/13, Office of THE CHEMIST AND DRUGGIST, 42 Cannon St., E.C.

**PILL-COATER** required by London wholesale house; must be accustomed to making and coating pills by machinery. Apply, with particulars of past experience, age, and wages required, to "Pill," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**WANTED** at once, with a view to purchase, an energetic Assistant (outdoors), to manage Retail Business; age about 25: must have good references. Apply, stating salary required, by letter, to Clarke, Bleasdale & Co., York.

**THE Liverpool Household Stores Association** (Limited) require a thoroughly practical Chemist to take the management of Drug and Perfumery departments. Apply, by letter, with experience and all particulars, to the Manager, Central Buildings, North John Street, Liverpool.

**WANTED** (outdoors), Sussex, Assistant for light class business and Manager for Branch; hours about 12 daily; Sundays, 6 to 9 P.M. State latest engagement, salary, and other particulars to save time, "Dentist," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**TRAVELLERS.**—The Monument Tea Company are open to appoint Travellers of good standing, on commission, for the sale of their Teas (blends and packets) in districts where not already represented. Address, 41 Great Tower Street, London, E.C.

**M. R. KNOWLES**, Dentist and Chemist, 149 Friar Street, Reading, is in immediate want of an indoor Assistant, who can take charge of business in his absence; must be of good address, and well recommended; hours 8 A.M. to 3 P.M.; no Sunday trade. Send full particulars.

**TRAVELLERS**, calling upon Chemists who are already representing well established firms, wanted to introduce "The Spring Blossom Ceylon Tea"; liberal commission (see full-page advertisement in this issue). Full particulars (letters only), to Cave, Johnson & Co., 8 Lime Street, E.C.

**MANAGER**, with extensive commercial experience, competent to take management of and develop Dispensary and General Business abroad; must be qualified and have highest references; fine opening for thoroughly capable man, 30 to 35. Apply by letter to C. M., 887, Messrs. Deacon, Leadenhall Street.

**WANTED** immediately, a young Assistant, just out of his apprenticeship; able to take the daily routine of a light country business; short hours; closed at half-past 4 on Thursdays; comfortable home; no Sunday trade; salary £20 for first year, with board and lodging. Johnson Cripps, Reepham, Norfolk.

**WANTED**, an active and intelligent man to assist in a Laboratory; one who has been accustomed to work in a Pharmaceutical or Chemical Laboratory preferred; it is essential that he be a painstaking and careful manipulator so as to carry out his instructions faithfully. State age, wages required, and where last employed, to Box 206, General Post Office, Newcastle-on-Tyne.

**WILLIAM HESELTINE & SON**, Wilson Street, Finsbury, E.C., are open to engage a first-class man to introduce and appoint Chemists as Agents for their Teas; liberal terms to one having necessary qualifications (see full page advertisement appearing in this issue). Apply by letter, as above, in first instance.



**W**ANTED, by a German Wholesale Export Drug Firm, an English Clerk who is thoroughly acquainted with the Colonial Export Drug business; salary £125 to begin with; none but a good English correspondent, well acquainted with English drug, &c., invoicing, need apply to A 12,274, care of Adolf Steiner's Advertising Agency, Hamburg.

### SITUATIONS WANTED.

*1s. for twelve words; 6d. for every six words beyond.*

**M**ANAGER; temporary or otherwise; qualified; long experience. M. J., 344 Mare Street, Hackney.

**I**MPROVER; aged 19; tall; Prelim.; disengaged. W. D., 45 Penygraig, Pontypridd, Glam.

**S**URGEON'S Dispenser; 7 years' reference; married. Richards, 20 Ceylon Road, West Kensington.

**A**S JUNIOR, aged 21; 5 years' London and Provincial experience. W. M., 83 North Street, Leeds.

**B**RANCH Manager or Assistant; aged 37; abstainer. C. W. B., 77 Branch Street, Burnley.

**T**EMPORARY or Branch Manager; disengaged; good references. "Aqua," 111 South St., Huddersfield.

**A**SSISTANT; aged 22; in or outdoor; unqualified; disengaged. W. Thorpe, Congreve Street, Birmingham.

**A**SSISTANT or Manager; in or outdoors. M., Preston-on-Wye, Hereford.

**J**UNIOR; 8½ years' experience; Mixed business; satisfactory references. A. Grist, Bidboro', Tunbridge Wells.

**I**MPROVER; aged 26; time for study; town; references; abstainer. Cocker, Stationer, Ripponden, Halifax.

**J**UNIOR; accustomed to good-class Dispensing; aged 21; height 5 ft. 9 in.; disengaged. W. Walker, 24 The Spa, Leicester.

**A**S Improver in Dispensing and Light Retail; aged 22; time for study; state full particulars. H. Bellman, Newton St. Cyres, Exeter.

**S**ENIOR; first-class reference; 20 years' experience; qualified. 157/15, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**J**UNIOR; London; good-class business; aged 23; tall; good references. H. Jones, Cambrian House, Newcastle Emlyn.

**J**UNIOR or Improver; outdoors; nearly 4 years' experience; references; aged 19; tall; abstainer. "Prelim.," Brynamlwg, Llannon, Aberystwith.

**M**ANAGER or Locum-Tenens; 30 years' experience; disengaged. J. C. Collie, Drybrook, Gloucestershire.

**M**ANAGER, Assistant, or Dispenser; outdoors; married; 6 years in last situation; registered dentist. Mr. Jos Bartletts, Witney, Oxon.

**A**S Junior, in Light Retail and Dispensing; aged 22; good references; disengaged. W. Gaddes, Brampton, Cumberland.

**W**ANTED, a situation as Dispenser or temporary Manager of a Retail; first-class references. 163/37. Office of THE CHEMIST AND DRUGGIST, 42 Cannon St., E.C.

**I**MPROVER; at once; small salary for improvement; can extract; aged 24; good references. "Chemicus," General Post Office, Gloucester.

**J**UNIOR; aged 21; six years' experience; good references; disengaged March 6th. E. Peginum, 23 Broadgate, Coventry.

**A**POTHECARIES' Hall Certificate.—As Dispenser in, or near, Manchester or London, with light hours; first-class references. 163/41, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.

**A**S Senior or Manager in a good-class country business, with view to partnership or succession; excellent references. Manager, Messrs. Battley & Watts, Cripplegate, London, E.C.

**T**O Wholesale Houses.—The Representative of a first-rate London house, calling upon the best country chemists, is open to one good Commission. Address, B. Z., Office of THE CHEMIST AND DRUGGIST, 42 Cannon St., E.C.

**A**S Improver; indoors, in a good family; Dispensing business; aged 19; height 5 ft. 10 in.; excellent references; state salary and hours. Pickering, Doldcliffe Road, Mexboro'.

**A**S Assistant or Manager, "not in stores," by energetic man; several years' varied experience; good references; single; aged 38; height 5 feet 8 inches; unqualified; disengaged. "Hyd.," 12 Chapel Street, Uxbridge, Middlesex.

**M**ANAGER, to reside on premises; aged 36 years; married; tooth extractor, prescriber; qualified all round; at liberty March 12; present situation nearly 4 years; previous two situations 7 years and 2 years; undeniable references. Address, Walker, 112 Blackburn Street, Bolton, Lancashire.

**A** MEMBER of Royal College Veterinary Surgeons, who has had several years' qualified experience in town and country practice, desires an engagement; would make terms with a chemist who would assist him in making a practice. "Veterinarian," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**M**ANAGER, to reside on premises; aged 27; married, no family; can extract and stop teeth, also take impressions for false teeth; 13 years' varied experience; at liberty at month's notice; in present situation 3 years; satisfactory reasons for wishing to change; undeniable references. "Chemicus," 22 Addison Road, Heaton, Newcastle-on-Tyne.

### MISCELLANEOUS.

*Special charges are made for Advertisements under this heading, which can be obtained on application.*

**A**GENTS are required by an Italian establishment for the sale (Wholesale only) of Olive Oil on the markets of London and Dublin. Offers, accompanied by first-class references, must be addressed to 233/58, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**T**O be sold, cheap, a Soda-Water Machine and a Turn-over Bottling Machine, to make room for larger; these machines are in good condition, in use at present time, and capable of making over 100 dozen a day (have done it). For price apply to Halls, Chemist, Newark.

**A**GENCY Wanted.—A manufacturing house employing 5 travellers, and with a large established connection amongst leading Chemists and Stores, is open to take the Agency for some first-class goods suitable for above buyers. Particulars, in first instance, to "Wholesale," care of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.